Original Article

Attitude and practice of cervical cancer screening among the female doctors of Bangabandhu Sheikh Mujib Medical University

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Abstract

Cervical cancer is the most common cancer in Bangladesh, in spite of having established screening program. This cross-sectional study was performedin Bangabandhu Sheikh Mujib Medical University (BSMMU) from July 2012- June2013 to determine the attitude and practice of cervical cancer screening among 401 female doctors of BSMMU.All the information was collected in a structured questionnaire and data were analyzed using SPSS version: 17.0. About 40.9% of female doctors had good knowledge regarding cervical cancer screening and 80.8percent of female doctors did not ever have a screening test. The less the participants' age, poor knowledge score and participants having only graduate degree, the less was the practice of cervical cancer screening(P<0.05The women studied here demonstrated a very low coverage of the screening test inspite of having good knowledge regarding its utility. Improving the awareness and self motivation is imperative for better implementation of cervical cancer screening program in Bangladesh.

Key words: Cervical cancer, cancer screening, knowledge & practice,

Introduction

Cervical cancer is the second most common cancer in women worldwide, but 80% of cancer occur in developing countries.[1] Its contribution to cancer burden is significant across all cultures and economies. Cervical cancer accounts for over 270, 000 deaths worldwide, an overwhelming majority of which occur in the less developed regions.[2] The reason for higher mortality of cervical cancer in developing countries is the tremendous health disparity leading to a state in which developing countries spend only 5% of the resources spent on cancer globally.[3] It is of note, that the major bulk of worldwide expenditure on cancer is spent on screening tests and treatment.

Bangladesh, like other developing countries faces a burden of diseases. In Bangladesh 13,000 and around 6,600 women die from cervical cancer each year.[2] Cervical cancer constitutes (20-29) % of the female cancer and 70% of all gynaecological malignancies in Bangladesh[4].The higher rate of mortality is attributed to the late presentation of cervical cancer in Bangladesh.[4]

The screening test is available for detecting cervical cancer at precancerous and early stages and is used widely in developed countries wherein it has decreased both the incidence and mortality of cervical cancer.[5] In developing countries, however it has had little impact due to inadequate coverage (a low proportion of women who have a smear).

The general objective of this study was to determine the attitude and practice of cervical cancer screening among the female doctors of Bangabandhu Sheikh Mujib Medical University (BSMMU) and also to identify the most common barrier for cervical cancer screening, so that possible interventions could be taken to increase the number of participants for screening.

Methods

This was a cross sectional observational study undertaken to determine the attitude and practice of cervical cancer screening among the female doctors of Bangabandhu Sheikh Mujib Medical University(BSMMU), Dhaka, Bangladesh. Married female doctors working in differently specialty of BSMMU aged 30 and above were included in the study.

Diagnosed case of any pre-invasive conditions, the female doctors that have had hysterectomy and the doctors who were working in the Department of Obstetrics and Gynaecology were excluded from the study. Four hundred

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and one (401) female doctors were included by purposive sampling from July 2012 to June 2013.

An informed written consent was obtained from all the participants before enrollment in the study. The information was collected in a pre-designed structured questionnaire by an interviewer. Content validity of questionnaire items was examined by clinical experts. Data were analyzed using statistical program SPSS version: 17.0. Frequency distributions were used to present the characteristics of the participating doctors. Chi-square test and Fisher's exact test were calculated and the significant level was set at P< 0.05.

The questionnaire included 21 items addressing demographic data and questions about knowledge, attitude and practice of cervical cancer screening. Knowledge about cervical cancer and cervical cancer screening was tested by asking some questions with the following items:

a. Whether the participant had ever heard of cervical cancer, symptoms and risk factors of cervical cancer
b. Whether the participant had ever heard of screening method.
c. Is it possible to cure this cancer?
d. Whether the participant knew the eligibility for screening and screening interval

The knowledge score of the participants was classified into 3 groups: "good" for those who could correctly answer all items; "average" for those with at least one wrong answer and "poor" for those with wrong answers for all items.

Attitude was ascertained with the following item:

a. What is the reason for not having a screening test?
b. Do they need more information about cervical cancer screening?
c. What information do they need?

Practice was ascertained with the following items:

a. Whether they ever been screened?
b. If they had the screening test, then how many times they had screened?
c. Had they ever been referred by a gynaecologist?
d. Do they have facilities available in their neighborhood?

Ethical clearance was taken from the ethical clearance committee of BSMMU. An informed written consent was taken stating the information that, all the information will be collected and confidentiality about the stated information will be strictly maintained. Data analysis was performed using Statistical Package for the Social Science (SPSS) program software version17.

Results

Four hundred and one (401) married female doctors aged 30 or above were included in the study. The mean age of the participants was (38.06±SD 5.88) years. About 60.1% of participants had MBBS degree and 38.9% of participants were postgraduate. About 16% of participants had a monthly income of less than Taka 19,999 and 32% had more than Taka 50,000 and above. (Table-I)

Table - I: The demographic characteristic of the participant

	Frequency	Percentage
Age category		
30-40	264	65.8
41-50	122	30.4
51-60	15	3.7
Total	401	100.0
Educational level		
MBBS	245	61.1
Postgraduate	156	38.9
Total	401	100

Knowledge score regarding cervical cancer screening was poor in 17.7%, average in 41.4% and good in 40.9% of the participants. (Table-II)

Table-II: Knowledge score about cervical cancer screening

Knowledge	**Frequency**	**Percentage**
Poor	71	17.7
Average	166	41.4
Good	164	40.9
Total	401	100.0

Relationship between knowledge score and participants' age were significant in the study. Participants aged 30-40 years had poor knowledge score (24.2%) than the participants between 41-50 years age group (4.9%) and between 50-60 years age group (6.7%). Majority of the participants among 50-60 years had good knowledge score (66.7%). The more aged the participants were, the greater was their knowledge score and vice versa and this was statistically significant (p<0.001). (Table-III)

Table-III: The distribution of participant by their age and knowledge score

		Knowledge about cervical cancer screening				
		Poor	Average	Good	Total	P Value
Age group In years	30-40	64 (24.2%)	127 (48.1%)	73 (27.7%)	264 (100 %)	<0.001 (0.000)
	41-50	6 (4.9%)	35 (28.7%)	81 (66.4%)	122 (100 %)	
	50-60	1 (6.7%)	4 (26.7%)	10 (66.7%)	15 (100.0%)	
	Total	71 (17.7%)	166 (41.4%)	164 (40.9%)	401 (100.0%)	

Participants who had MBBS degree had poor knowledge score in25.3%; average knowledge score in 47.8% and good knowledge score in 26.9%. Conversely, among the postgraduate participants, poor knowledge score was in only 5.8%, average in 31.4% and good in 62.8%. Postgraduate participants had good knowledge score than those having MBBS degree and this was statistically significant (p<0.001).(Table-IV)

Table-IV: The distribution of participant by their education and knowledge score

		Knowledge about cervical cancer screening				
		Poor	Average	Good	Total	P value
Education of Participant	MBBS	62 25.3%	117 47.8%	66 26.9%	245 100.0%	<0.001 (0.000)
	Postgraduate	9 5.8%	49 31.4%	98 62.8%	156 100.0%	
	Total	71 17.7%	166 41.4%	164 40.9%	401 100.0%	

Only 19.2% (77) had ever had a screening test and the majority 80.8% (324) of the participants had not their screening test. The participants stated that, those who were screened, almost all of them were referred by a doctor and 79.3% of the participants had never been suggested by a doctor to have a screening test. During interviewing 77.8% of the participants mentioned that, they have the facility of doing a screening test and only 22.2% mentioned that they have not such facility (Table-V)

Table-V: The distribution of participant regarding practice on cervical cancer screening

Practice	Frequency	Percentage
Participants had their screening test	77	19.2%
Participants who did not have their screening test	324	80.8%
If they had the screening test, how many times did they screen?		
• One time	59	14.7%
• Two times	12	3.0%
• Three times	3	0.7%
• More than three times	3	0.7%
Referred by doctor		
• Yes	83	20.7%
• No	318	79.3%
Facilities available		
• Yes	312	77.8%
• No	89	22.2%

The most common reason cited for not having a screening test was, never asked to do it (39.5%). 30.86% did not screened due to fear of embarrassment and 14.81% due to anxiety of receiving abnormal result. (Table-VI)

Table-VI: Attitude regarding cervical cancer screening

	Frequency	Percentage
Reason for not having screening test		
Never asked	128	39.5
Never heard	1	0.3
No opportunity	1	0.3
Fear of embarrassment	100	30.86
Anxiety of receiving abnormal result	46	14.81
Poor understanding of the screening procedure	46	14.19
Type of information		
Where is it done	44	11.0
What are the methods	61	15.2
How much does it cost	40	10.0
What are the side effects	47	11.7

It was also found that participants having good knowledge score screened more (40.9%) than those having poor knowledge score (2.8%),that means the poorer the knowledge score was, the fewer were the screening test and this was statistically significant ($p<0.001$). (Table-VII)

Table-VII: The distribution of participant by their knowledge score & practice on cervical cancer screening

Knowledge about cervical cancer screening	Ever have a screening test			P value
	Yes	No	Total	
Poor	2 2.8%	69 97.2%	71 100.0%	
Average	8 4.8%	158 95.2%	166 100.0%	
Good	67 40.9%	97 59.1%	164 100.0%	<0.001
Total	77 19.2%	324 80.8%	401 100.0%	(0.000)

Discussion

The participants for this study were recruited from BSMMU. The demographic feature of the study sample typically represents the population of having a high to average monthly income and good literacy and every facility of doing cervical cancer screening test.

Cervical cancer is one of the most common causes of cancer deaths globally. About 85% of the cervical cancer deaths

worldwide occur in less developed countries, where it is the leading cause of cancer deaths.[2] The age standardized mortality rates (ASMR) for cervical cancers in less developed countries is 11.2 per 100,000 as compared to the ASMR of 4 per 100,000 in more developed countries.[2]

The higher mortality of cervical cancer in the less developed countries can be attributed to the late presentation of cancers in these countries. In Bangladesh, according to the hospital based cancer registry of NICRH, cervical cancer tops the list of common gynaecological cancer. A study by Ferdous J et al also found that cervical cancer accounted for 70% of all gynaecological cancer admitted in BSMMU in the year 2007.[4]

Cervical cancer screening is extremely effective in detecting the cervical cancer at a very early stage. In this study, however, only 19.2% of doctors had ever received a screening test. This is in contrast to that data reported from several developed countries.[6-8] According to the National Health Survey, more than 80% of adult females in the United States had a screening test done during the past 3 years.[7] Implementing a coordinated screening intervention of such magnitude, however, has seemed far from practical in majority of developing nations, including Bangladesh.

In this study, knowledge score regarding cervical cancer and cervical cancer screening was good in elderly participants. The relation between knowledge score and participants' age and education was statistically significant. The more aged the participants were, the greater was their knowledge score and vice versa and this was statistically significant.The lesswas the participants' age and participants having only MBBS degree, the less was the knowledge score. Similar results were found in Arevin and Noreddin who reported that education is the most important predictor of knowledge about cervical cancer screening.[9] It was also shown from the study that participants' age, education and knowledge score significantly affect the practice towards cervical cancer screening. Participants having postgraduate degree, and those with good knowledge score had the screening more. A number of studies attempted to determine what factors are associated with not participating in the screening for cervical cancer. In this study about 80.8% of participants had not been screened.The most common reason cited for not having a screening test was, never asked to do it (39.5%); 0.3% answered that they never heard or they had no opportunity to do it, 14.19% cited that they had poor understanding of the screening procedure but interestingly 30.86% did not screened due to fear of embarrassment and 14.81% did not screened due to anxiety of receiving abnormal result.

In this study it was also found that the poorer the knowledge scorewas, the fewer were the screening test. In this study surprisingly, majority of the knowledgeable group did not have a screening test even once in their life(59.1% particpants possessing good knowledge score had not been screened) In a recent study from Karachi, only 14% subjects knew that early detection of cancer is possible though screening.[10]

In the present study, more than half of the participants (52.12%) showed keen interest in obtaining more information regarding cervical cancer screening in spite of having all the facilities of the screening tests. Several studies in developed countries have concluded that even in the higher socio economic strata of South Asian women, the rates of Pap test received remain low due to lack of awareness.[11-13]

A study done by Bakheit et al among 350 school teacher in Sharjah showed that, although the teachers have a good knowledge about papanicolaou smear tests, they are not commonly practicing it,reasons for not having a pap test were belief that it might be painful and embarrassing and they concluded that, long term education program should be made available to motivate the female population in the UAE.[14]

A study by Sait KH regarding cervical cancer screening among physicians in the Western Region of Saudi Arabia showed that, 64.3% of the gynaecologistand 33.8% of non-gynaecological physicians believed that cervical cancer was curable, a total of 91% knew that Pap smear test is used as a screening method for cervical cancer and the conclusion was physicians would benefit from further education regarding the available screening and prevention of cervical cancer.[15]

Therefore, improving the knowledge of the population regarding cervical cancer screening is one of the most important steps in enhancing the screening coverage among Bangladeshi females. Any coordinated cancer screening effort is unlikely to succeed without a sound knowledge among the target population regarding it's goals and efficacy. A number of inexpensive community based efforts have been identified to improve the awareness regarding cervical cancer screening, which may be employed in Bangladesh.[16] Moreover, physicians need to be proactive to have their own tests about such screening methods.

The doctors studied here demonstrated a very low coverage of the screening test inspite of having good knowledge regarding its utility & availability. Understanding and addressing the obstacles of access and acceptability is also

necessary. If even in BSMMU, a centre of excellence, doctors are unaware of the screening facilities, the condition of doctors in other institutes/centres could be emazined. Long term education is needed to motivate the women population especially who are service provider in a community. When the female doctors have positive knowledge, attitude and practice then it will have a positive impact towards whole community. The physicians need to be proactive to have their own screening tests and also to motivate the general population to increase the coverage. Improving the awareness and self motivation is imperative for better implementation of cervical cancer screening program in Bangladesh. One day cervical cancer prevention and control will be no longer just a dream.

Limitation of the study was that, the study had been done in a tertiary level hospital among the doctors where screening facility is available, so the study population did not represent that of total population of Bangladesh. A community based study is further needed to find out the true situation of the whole country.

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