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KNOWLEDGE AND ATTITUDE TOWARDS CERVICAL CANCER AMONG ADULT WOMEN ATTENDING A PRIVATE HOSPITAL IN DHAKA

Saleha Akter[1], *Ebney Sunjida Abedin[1], Sonia Parvin [1,2], Lamia Rukhsara[3], Nadira Mehriban[1]

[1]Department of Public Health, Daffodil International University, Daffodil Smart City, Birulia, Savar, Dhaka-1216, Bangladesh

[2]Department of Pediatric Medicine, Chittagong Medical College & Hospital, Chittagong Bangladesh

[3]Department of Computer Science and Engineering, Faculty of Science and Information Technology, Daffodil International University, Daffodil Smart City, Birulia, Savar, Dhaka-1216, Bangladesh

Abstract: *Cervical cancer is the second most common cancer arising from cells originating in the cervix uteri that women suffer across the globe. About 11,956 women are diagnosed with cervical cancer in Bangladesh every year, and over 6,582 dies due to this disease. The study aimed to explore the level of knowledge and attitude towards cervical cancer among adult women attending a private hospital in Dhaka City. This cross-sectional study was conducted in Labaid Hospital at Dhanmondi, Dhaka, from January to August 2020 using a semi-structured questionnaire. Among 142 participants, the majority (62.3%) were in the age group ≥30 years with a mean age of 29.47±4.873 years. About (66.9%) of the respondents don't have any idea about cervical cancer, (91.5%) were not aware of human papillomavirus (HPV), and 40.1% strongly disagreed that women with multiple sex partners are more predisposed to cervical cancer. The level of knowledge was associated with age group, marital status, education, occupation, family type, and residence of respondents. While the level of attitude was associated with respondents' age group, religion, marital status, education, occupation, family monthly income, and residence. In summary, the study found that the respondents' socio-demographic characteristics have a significant impact on their knowledge and attitude towards cervical cancer. Several community-based interventions need to be adopted and implemented in Bangladesh to promote higher awareness regarding cervical cancer among the concerned stakeholders.*

Keywords: *Knowledge, Attitude, Cervical cancer, Women, Dhaka City.*

Introduction

Cervical cancer caused by the Human Papillomavirus (HPV), namely HPV-16[1], begins in the cells lining the cervix, located in the lower section of the uterus (womb). The cervix links the uterine body (the top region where the fetus develops) to the vagina (birth canal)[2]. Cancer develops when cells in the body begin to proliferate uncontrollably[2]. Cervical cancer is a grave public health problem and a malignant neoplasm that is asymptomatic in the early stages[3-5]. According to current statistics, it is the second most frequently occurring malignancy in women and the third major cause of cancer mortality globally6. In later stages, it may manifest as chronic pelvic discomfort, unexplained weight loss,

*Corresponding author: Ebney Sunjida Abedin, Department of Public Health, Daffodil International University, Daffodil Smart City, Birulia, Savar, Dhaka-1216, Bangladesh. E-mail: ebneysunjida5@gmail.com

bleeding and discomfort after sexual intercourse, bleeding between cycles, atypical vaginal discharge and HPV serves as a major contributor to this cancer[7,8]. First Papanicolaou (Pap) test is advised at the age of 21, followed by Pap tests every three years, and for those aged between 30-65 years, there are HPV test every 5 years, HPV/Pap cotest every 5 years, and Pap test every 3 years[9]. Globally, in 2020, there were 604 million new cases and 342 million deaths. In 2020, low- and middle-income nations accounted for over 90.0% of new cervical cancer cases and fatalities worldwide[10].

This widespread morbidity and mortality from cervical cancer are pointless, not only because the precise cause of the disease is now recognized but also because the disease takes a long time to develop after the first infection with high-risk HPV. Unlike most other forms of cancer, it can be prevented if the precursor lesions are identified and treated. Cervical cancer screening can lower both the incidence and fatality rate[9]. The disparity in incidence between the low- middle and high-income countries can be attributed to a lack of awareness of cervical cancer and the lack of effective cytological screening programmes[10].

Though nearly 90.0% of HPV infections are eliminated spontaneously by the immune system, persistent infections can raise the risk of cervical cancer by causing precancerous lesions that can progress to cervical cancer over a 10-year period[11]. In Bangladesh, over 30 million women between the ages of 30-60 years need screening to find out if they are susceptible to cervical cancer[12].

Since the prevalence of cervical cancer is increasing gradually, it necessitates the importance of greater awareness regarding cervical cancer. Some hospital-based and community-based studies were conducted previously in the context of Bangladesh on this phenomenal issue. This study aims to contribute to the knowledge repository by exploring the level of knowledge and attitude related to cervical cancer among adult women attending a private hospital. Besides, this study will also help to analyze a probable relationship between the knowledge level and the socio-demographic parameters of respondents. The outcome measurement of this short study may provide inputs towards designing suitable Information, Education, and Communication (IEC) strategies to inform and educate women about cervical cancer prevention.

Materials and Method

This descriptive cross-sectional study was conducted at Labaid Hospital at Dhanmondi, Dhaka, from January to August 2020. The study aimed to explore the knowledge and attitude towards cervical cancer among adult women attending a private hospital in Dhaka City. The target population was young women visiting the hospital during the study period and willing to participate in this research voluntarily. The sampling technique used in this study was convenient sampling since our target participants were young women visiting the gynaecologist for regular check-up.

Sample size determination

The sample calculated using the following formula:
$n= z^2pq/d^2$ Where, n= desired sample size, z = 1.96 (95% confidence interval), p = Prevalence of Cervical Cancer Screening and Awareness among Women in an Urban Community in South India—A Cross Sectional

Study 10.3%13 = 0.103, q = 1-p = 1- 0.103= 0.897, d = 5%. So, n= $(1.96)^2$x 0.103 x 0.897 / $(0.05)^2$= 141.9717062 =141.9717062 ~142
About 142 attending adult women at Labaid Hospital in Dhanmondi, Dhaka participated in this study.

Data Collection

Data were collected through face-to-face interviews using a semi-structured questionnaire. Questionnaire was translated from English to Bangla, and it was pre-tested. Finalized version was developed by incorporating inputs from the pre-testing phase and after constructive feedback from public health experts. Data were collected using final version of the questionnaire. For quality assurance, data was checked in regular basis by the researcher and suggestions and guidelines were taken from the co-authors.

Data Analysis

The data was analysed by using Statistical Package for Social Science (SPSS) version 23.0. Data were presented in the form of tables, graphs, followed by the interpretation of the results. Chi-square test was conducted to explore the association between categorical variables. The p-value level of <0.05 was considered to test statistical significance. The descriptive analysis of data was presented as tables.

Ethical Considerations

The study protocol was approved by the Research Ethics Committee (REC) in the Faculty of Allied Health Science (FAHS) at Daffodil International University, Dhaka, Bangladesh. Written informed consent was taken from respondents, and anonymity and confidentiality were maintained strictly. Administrative permission for the study was obtained from the relevant authorities of the selected hospital.

Results

Table 1 shows that 97 participants' (62.3%) age was ≥30 years with mean age of 29.47 ±4.873 years. Most of the respondents, 113 (79.9%) were Muslims. About 127 participants (86.8%) lived with husbands. More than half of the participants, 84 (52.8%) had monthly income of >50000 taka with mean (±SD) income of 61318.0 ± 27090. About 93 of the respondents (68.7%) lived in nuclear family. According to educational level of respondents, 60 (41.5%) had HSC degree.

Table 1. Socio-demographic distribution of the respondents (n=142)

Respondent's characteristic	Frequency	Percent
Age group (years)		
< 30	45	37.7
≥ 30	97	62.3
Mean ± SD	29.47 ±4.873	
Religion		
Muslim	113	79.9
Non- Muslim	29	20.1
Marital status		
Live with Husband	127	86.8
Live without Husband	15	13.2
Family's monthly income (Taka)		
≤ 50000	58	47.2
> 50000	84	52.8
Mean ± SD	61318.0 ± 27090.0	
Family type		
Nuclear Family	93	68.7
Joint Family	49	31.3
Educational Level		
> HSC	59	41.5
≤HSC	83	58.5
Occupation		
Employed	87	61.6
Housewife	55	38.4
Total	142	100

Table 02 shows the distribution of the respondents' knowledge on cervical cancer. The findings show 33.1% of the respondents had idea about cervical cancer, 20.4% respondents knew the usual age of occurrence of cervical cancer, 5.6% knew the risk factors of cervical cancer, 9.2% respondents thought that sexual activity is a risk factor of cervical cancer, 6.3% respondents were aware of Pap Smear Test, 8.5% respondents were aware of Human papillomavirus (HPV). According to the table 02, the distribution of the respondents' attitude towards cervical cancer have been presented. The findings show that 9.2% respondents strongly agreed that intermenstrual bleeding is normal, 29.6% respondents strongly agreed that a woman should bear her first child by age of 20 years, 23.9% respondents strongly agreed that women should bear 5 or more children in order to increase family strength, 40.1% respondents strongly agreed that women with multiple sex partners are more predisposed to cervical cancer, 22.5% respondents strongly agreed that women should get an internal examination done by a gynaecologist once in every 3 years, 18.3% respondents strongly agreed

that if a lady in the neighbourhood is suffering from cervical cancer, they would keep distance from her, only 14.8% respondents strongly agreed that if offered a free cervical cancer screening she would be willing to be screened.

Table 02: Distribution of the respondent's knowledge and attitude on cervical cancer

Knowledge on cervical cancer Statement	Frequency	Percentage
Idea about cervical cancer		
Yes	47	33.1
No	95	66.9
The usual age of occurrence of cervical cancer		
Yes	29	20.4
No	113	79.6
The risk factors of cervical cancer		
Yes	08	5.6
No	134	94.4
Think that sexual activity is a risk factor of cervical cancer		
Yes	13	9.2
No	129	90.8
Aware of Pap Smear Test		
Yes	09	6.3
No	133	93.7
Aware of Human papillomavirus (HPV)		
Yes	12	8.5
No	130	91.5
Attitudes on Cervical Cancer		
Intermenstrual bleeding is normal		
Strongly agree	13	9.2
Agree	24	16.9
Neutral	26	18.3
Disagree	57	40.1
Strongly Agree	22	15.5
A woman should bear her first child by age of 20 years		
Strongly agree	42	29.6
Agree	35	24.6
Neutral	08	5.6
Disagree	48	33.8
Strongly Agree	09	6.3
Women should bear 5 or more children in order to increase fam		
strength	34	23.9
Strongly agree	41	28.9
Agree	12	8.5
Neutral	39	27.5
Disagree	16	11.3
Strongly Agree		

Women with multiple sex partners are more predisposed to	57	40.1
cervical cancer	49	34.5
Strongly agree	05	3.5
Agree	18	12.7
Neutral	13	9.2
Disagree		
Strongly Agree		
Women should get an internal examination done by a		
Gynaecologist once in every 3 years	32	22.5
Strongly agree	46	32.4
Agree	10	7.0
Neutral	35	24.6
Disagree	19	13.9
Lady in the neighbourhood is suffering from cervical cancer,		
you would keep distance from her	26	18.3
Strongly agree	38	26.8
Agree	14	9.9
Neutral	43	30.3
Disagree	21	14.8
Strongly Agree		
You were offered a free cervical cancer screening would you		
be willing to be screened	21	14.8
Strongly agree	33	23.2
Agree	06	4.2
Neutral	51	35.9
Disagree	31	21.8
Strongly Agree		

Table 3 shows association between respondents knowledge and socio-demographic variables. There are significant associations between respondents' knowledge level with her age group (p 0.001), marital status (p 0.041), education ($p < 0.0001$), occupation (p 0.013), family type (p value 0.031), and residence (p 0.005). No significant association was found in case of respondent's religion (p 0.087) and family monthly income (p 0.163).

Table 03: Association of the respondent's knowledge level with socio-demographic status

Socio-demographic variables	Knowledge level			
	Good	Moderate	Poor	p-value
Age (years)				
< 30	06 (4.2)	19 (13.3)	20 (14)	0.001
≥ 30	08 (5.6)	22 (15.5)	67 (46.4)	
Religion				
Muslim	11 (7.7)	32 (22.5)	70 (49.2)	0.087
Non- Muslim	03 (2.1)	09 (6.3)	17 (11.9)	
Marital status				
Live with Husband	13 (9.2)	38 (26.7)	76 (53.52)	0.041
Live without Husband	01(0.7)	03 (2.1)	11(7.7)	
Educational level				
≤ HSC	05 3.52)	10 (7)	68 (47.9)	0.000
>HSC	09 (6.3)	31 (21.8)	19 (13.3)	
Occupation				
Housewife	4 (2.8)	14 (9.8)	66 (46.47)	0.013
Employed	10 (7)	27 (19.01)	21(14.7)	
Family's monthly income (Taka)				
≤ 50000	06 (4.2)	17 (11.9)	35 (24.6)	0.163
>50000	08 (5.6)	24 (17)	52 (36.6)	
Family type				
Nuclear Family	03 (2.1)	13(9.2)	77 (54.2)	0.031
Joint Family	11(7.7)	28 (19.7)	10 (7)	
Residence				
Urban	13 (9.2)	40 (28.1)	84(59.1)	0.005
Rural	01 (0.007)	01 (0.007)	03 (2.1)	

Table 4 shows association between respondents attitude level and socio-demographic variables. Majority of respondents 65 (45.7%) above 30 years old have poor attitude level. According to this table, those who live with their husband (p=0.047), have no HSC degree (p=0.001), housewives (p=0.019), family monthly income greater than 50000 (p=0.004), and live in urban areas (p=0.009) have significantly poor attitude level on cervical cancer.

Table 04: Association of the respondents' attitude level with socio-demographic status

Socio-demographic variables	Attitude level			
	Good	Moderate	Poor	p-value
Age (years)				
< 30	08 (5.6)	19 (13.3)	18 (12.7)	0.023
≥ 30	11 (7.7)	21 (14.7)	65 (45.7)	
Religion				
Muslim	16 (11.2)	22 (15.5)	75 (52.8)	0.006
Non- Muslim	03 (2.1)	18 (12.7)	08 (5.6)	
Marital status				
Live with Husband	13 (9.2)	36 (25.3)	78 (55)	0.047
Live without Husband	06 (4.2)	04 (2.8)	05 (3.5)	
Educational level				
≤ HSC	01(0.007)	12 (8.4)	70 (49.2)	0.001
>HSC	18 (12.7)	28 (19.7)	13 (9.2)	
Occupation				
Housewife	08 (5.6)	21 (14.7)	55 (38.7)	0.019
Employed	11 (7.7)	19 (13.3)	28 (19.7)	
Family's monthly income (Taka)				
≤ 50000	07 (5)	13 (9.2)	38 (26.7)	0.004
>50000	12 (8.4)	27 (19)	45 (31.6)	
Family type				
Nuclear Family	03 (2.11)	12 (8.4)	78 (55)	0.151
Joint Family	16 (11.2)	28 (19.71)	05 (3.5)	
Residence				
Urban	18 (12.7)	38 (26.7)	81(57)	0.009
Rural	01(0.007)	02 (1.4)	02 (1.4)	

Discussion

This study was conducted to identify the knowledge and attitude towards cervical cancer among adult women attending a private hospital in Dhaka. A cross-sectional study conducted in South India found that 84.6% of women had poor knowledge, 10.3% had moderate knowledge, and only 5.1% had good knowledge regarding cervical cancer[13,14]. In our study, 9.86% respondents had good knowledge on cervical cancer, 28.87% had moderate knowledge, and 61.27% respondents had poor knowledge on cervical cancer.

Among the participants, 19 (13.9%) had good attitude towards cervical cancer, 40 (28.7%) had moderate attitude, 83 (57.4%) had poor attitude towards cervical cancer. In this present study, we found that there was significant association between respondents' knowledge level with respondents' age

group, marital status, education, occupation, family type, and residence; whereas, no significant association was found in case of respondents' religion and family monthly income.
In terms of the association between educational level and knowledge level on cervical cancer, our finding is broadly consistent with another article reporting there is a significant association between illiteracy and poor knowledge about cervical cancer. Those whose education level was above primary level had better knowledge (62.8%) than those below primary level or having illiterate status (38%)[15].
In this study we also observed that there are significant associations between respondents' attitude level with their age group, religion, marital status, education, occupation, family monthly income and residence. No significant association was found between respondents' attitude and family type. Thus, the findings of the study indicate that women's socio-demographic parameters can greatly influence their knowledge and attitude towards cervical cancer.

Conclusion and Recommendations

In Bangladesh, women are less knowledgeable about cervical cancer. The lack of knowledge towards cervical cancers have been significantly linked to the respondents' age group, marital status, education, occupation, family type, and residence. No significant association was found in case of respondents' religion and family monthly income. Notably, there are significant association in terms of the respondents' attitude level with age group, religion, marital status, education, occupation, family monthly income, and residence. No significant association was found in case of respondents' family type. Programs on creating public awareness on cervical cancer are highly recommended. Future study with larger sample size may be required on similar issue to understand the depth of the problem in broader context. Based on the findings, our recommendations are- to raise an extensive level of awareness among adult women at the community level. It is also advisable to arrange workshops and training at community clinics located in rural areas.

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