Awareness of Cervical Cancer among Women at Rangpur District in Bangladesh

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ABSTRACT

Cervical cancer has been identified as the second most common cancer in women and contributes to the high mortality rate in women. Among all cancers in women, cervical cancer is rated the second most common cancer in women worldwide. In poorly resourced settings, access to services offering cervical screening is still a challenge and it is estimated that more than 50% of women in developing countries have never had a single screening test for cervical abnormalities. This study wills awareness of cervical cancer among women at Rangpur division in Bangladesh. A cross-sectional survey was conducted among 150 women. The women's score on knowledge, attitude, awareness and practice were categorized as sufficient or insufficient. The results of this study showed that 60% of respondents were informed by health care professionals on cervical cancer. Health care workers also should play a vital role in educating communities on cervical cancer and on the benefits for cervical cancer screening, through reaching all patients who utilize health care services with cervical cancer information and also communities through outreach programmes.

Keywords: *Cervical cancer- screening, VIA test- HPV- women- Bangladesh*

INTRODUCTION

Worldwide, cervical cancer comprises approximately 12% of all cancers in women. It is the second most common cancer in women worldwide, but the commonest in developing countries. Annual global estimates around the year 2000 are for 470 600 new cases and 233 400 deaths from cervical cancer annually. Eighty percent of these cases occur in developing countries. In most countries in North America and Western Europe, the incidence of cervical cancer has been falling, although recently at a much slower rate. In many developing countries, however, cancer of the cervix has changed little in incidence, except for those countries that have achieved the demographic (epidemiological) transition with increasing affluence from industrialization. In such countries, there has been a fall in incidence of cancer of the cervix, and a rise in incidence in cancer of the breast, similar to changes that occurred in North America and Western Europe in the early part of the last century. Many of the countries that have been through this transition are in the "middle-income" category.

It has been estimated that the number of prevalent cervical cancer cases diagnosed in the previous five years was around 1 401 400 in the year 2000 compared with 3 860 300 for breast cancer, with 1 064 000 and 1 522 000 of these occurring in developing countries, respectively. Thus although breast cancer is increasing in importance in many developing countries, cervical cancer remains a major cause of morbidity and mortality. Data are available internationally on trends and incidence of cancer of the cervix and, with some notable exceptions, tend to show declines. This is true for nearly all registries in the Americas, Asia, Australasia and Hawaii, and Europe. The reductions have been quite striking in Hawaii, Denmark, Finland, Sweden, Japan, and more recently in the Maoris of New Zealand but also in Cali, Colombia and Puerto Rico. In Cali, Colombia, screening programmes have been operational, and a case-control study confirmed that screened women had a reduced risk of disease. However, since overall coverage does not sufficiently

explain all of this incidence reduction, much of it may reflect epidemiological transition. Reductions have been quite small recently in many countries with low incidence in the early 1960's including Canada, many parts of the United States, and the Caucasian population of New Zealand. In Finland there has been some recent increase in incidence, but not in mortality, in women aged 25–54.

CERVICAL CANCER

Cervical cancer is a cancer arising from the cervix. It is due to the abnormal growth of cells that have the ability to invade or spread to other parts of the body. Early on, typically no symptoms are seen. Later symptoms may include abnormal vaginal bleeding, pelvic pain, or pain during sexual intercourse. While bleeding after sex may not be serious, it may also indicate the presence of cervical cancer.

Human papillomavirus (HPV) infection appears to be involved in the development of more than 90% of cases; most people who have had HPV infections, however, do not develop cervical cancer. Other risk factors include smoking, a weak immune system, birth control pills, starting sex at a young age, and having many sexual partners, but these are less important. Cervical cancer typically develops from precancerous changes over 10 to 20 years. About 90% of cervical cancer cases are squamous cell carcinomas, 10% are adenocarcinoma, and a small number are other types. Diagnosis is typically by cervical screening followed by a biopsy. Medical imaging is then done to determine whether or not the cancer has spread.

HPV vaccines protect against between two and seven high-risk strains of this family of viruses and may prevent up to 90% of cervical cancers. As a risk of cancer still exists, guidelines recommend continuing regular Pap smears. Other methods of prevention include: having few or no sexual partners and the use of condoms. Cervical cancer screening using the Pap smear or acetic acid can identify precancerous changes which when treated can prevent the development of cancer. Treatment of cervical cancer may consist of some combination of surgery, chemotherapy, and radiotherapy. Five year survival rates in the United States are 68%. Outcomes, however, depend very much on how early the cancer is detected. Worldwide, cervical cancer is both the fourth-most common cause of cancer and the fourth-most common cause of death from cancer in women. In 2012, an estimated 528,000 cases of cervical cancer occurred, with 266,000 deaths. This is about 8% of the total cases and total deaths from cancer. About 70% of cervical cancers occur in developing countries. In low-income countries, it is the most common cause of cancer death. In developed countries, the widespread use of cervical screening programs has dramatically reduced rates of cervical cancer. In medical research, the most famous cell line known as HeLa was developed from cervical cancer cells of a woman named Henrietta Lacks.
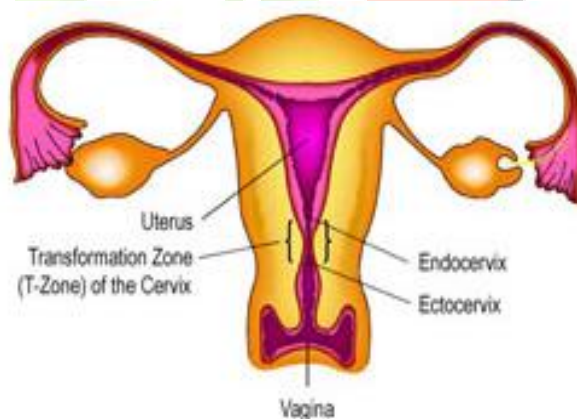

Figure 1: Cervix

Most cervical cancers (80 to 90 percent) are squamous cell cancers. Adenocarcinoma is the second most common type of cervical cancer, accounting for the remaining 10 to 20 percent of cases. Adenocarcinoma develops from the glands that produce mucus in the endocervix. While less common than squamous cell carcinoma, the incidence of adenocarcinoma is on the rise, particularly in younger women. More than 12,000 women in the United States will be diagnosed with cervical cancer each year, and more than 4,000 of women will die. Cervical cancer is the second most common type of cancer for women worldwide, but because it develops over time, it is also one of the most preventable types of cancer. Deaths from cervical cancer in the United States continue to decline by approximately 2 percent a year. This decline is primarily due to the widespread use of the Pap test to detect cervical abnormalities and allow for early treatment. Most women who have abnormal cervical cell changes that progress to cervical cancer have never had a Pap test or have not had one in the previous three to five years.

Cancer of the cervix tends to occur during midlife. Half of the women diagnosed with the disease are between 35 and 55 years of age. It rarely affects women under age 20, and approximately 20 percent of diagnoses are made in women older than 65. For this reason, it is important for women to continue cervical cancer screening until at least the age of 70.

INDIVIDUAL TYPES OF CANCER

There are said to be over 200 different types of cancer. We have the following common cancer types covered in individual Knowledge Center articles:

• Anal cancer	• Endometrial cancer	• Prostate cancer
• Bladder cancer	• Kidney cancer	• Stomach cancer
• Bone cancer	• Leukemia	• Testicular cancer
• Breast cancer	• Liver cancer	• Thyroid cancer
• Cervical cancer	• Lymphoma	• Vaginal cancer
• Colon cancer	• Ovarian cancer	• Vulvar cancer
• Colorectal cancer	• Pancreatic cancer	

OBJECTIVES OF THE STUDY

Objectives are specifically stated aims that would be achieved by conducting the research empirically. Objectives come out of the stated problem in a systematic order and form. Generally, these are some short independent sentence indicating a plan of step by step advancement towards collection of information. The objectives are stated bellow:

General Objectives

The objective of this study was to assess the feasibility of cervical cancer screening and determine the risk factors of cervical cancer to help to initiate cervical cancer prevention in Rangpur district.

Specific Objectives

1. To assess the early diagnosis of cervical cancer.
2. To find out associated risk factors of cervical cancer.

METHODOLOGY OF THE STUDY

In a broader sense of the term, methodology considers all techniques, strategies, approaches to be applied at every phases of conducting the research, especially, in collecting, processing and analyzing information. Methodological consideration also involves the reliability and validity of techniques and findings. Documentary analysis has used for the study. Data are facts, figures and other relevant materials, past and present, serving as the bases for study and analysis.

Study Design: It was a descriptive study. A cross-sectional study was a descriptive study in which exposure the present status is measured simultaneously in a given population.

Study population: All women, those who are attended in the outdoor hospital for Visual inspection with acetic acid (VIA) were purposively allocated enrolled in the study. Out of 150 women's were equal distribute in each selected area.

Study Area: The study was conducted in Rangpur Medical College and Hospital.

Variables:
1. Age at marriage,
2. Number of parity,
3. Mode of delivery,
4. Injury or trauma to cervix.

Sampling Method and Technique: 150 respondents were selected through purposive sampling.

Data collection Procedure: Data was collected from primary Sources. The data was collected purposively selected respondent for VIA of Rangpur Medical College Hospital. The secondary data collection method has focused on extensive literature review covering relevant national-level studies and reports. Websites of relevant organizations were analytically surfed through. Besides, newspapers, conference proceedings,

working papers, Journals, Articles, Term paper, Research Report, and other sources of information were also explored to the optimum level. All the data obtained from secondary sources were analyzed and eventually a conclusion is drawn resulting in incorporating our ideas and experiences.

Data collection tools: Questionnaires were used as a form of collecting data. Data were collected through appropriate questionnaire which was prepared for the study. Closed-ended questions were used in the questionnaire. A questionnaire in English was developed and finalized through pre-test and used for data collection. What the respondents were expected to come up with were responses which would help the researcher to raise certain elements of crime that the researcher may not be aware of. The questionnaire was distributed in good time and the interviewees were given questionnaires in their hands and asked to complete them in the presence of the researcher or his assistants. This was done so as to get as high a response rate and return as possible.

Methods of data collection: Data was collected through interview method, i.e. Interviewers collect data from the respondents through face to face interview.

Data Analysis: The data analysis stage was really an attempt to answer the relevant research questions by examining and assessing the collected information to identify patterns and meanings. The gathered data was interpreted and analyzed. After entire collecting data, it was computerized using suitable data entry software, such a SPSS; MS. Excel etc Data was analyzed by using SPSS software. Statistical analysis was performed by using SPSS (Statistical Package for Social Sciences) for windows version 16. Table and graphs and statistical analysis were done by adequate tables and graphs. After the data had been collected, analyzed and interpreted, the final report was then written.

Table 1: Distribution of Respondents Age

Respondents Age	Frequency	Percentage
30-35 years	18	15
36-40 years	30	33
41-45 years	55	48
45 + years	47	54
Total	**150**	**150**

Figure 1: Distribution of Respondent's Level of Education
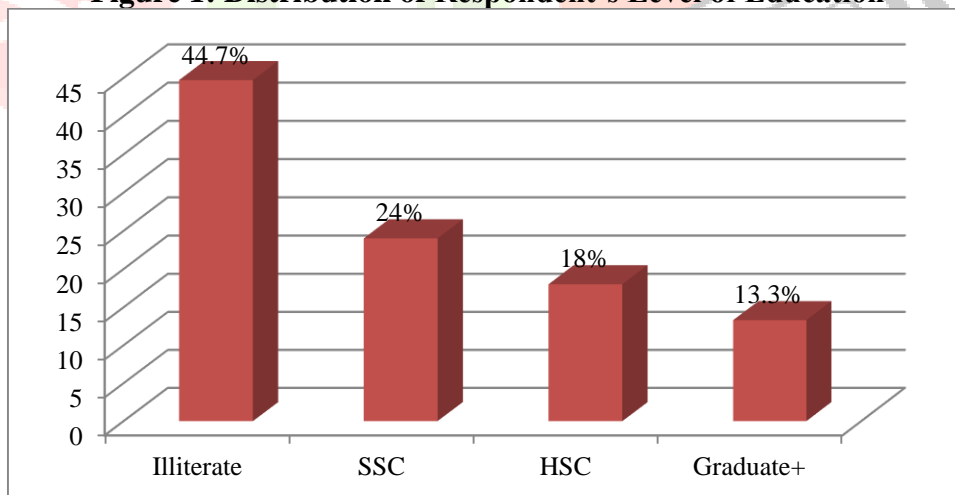
Table 2: Distribution of respondent's marital status

Respondents Marital Status	Frequency	Percentage
Un-married	8	5.3
Married	115	76.7
Divorced	17	11.3
Widow	10	6.7
Total	**150**	**100**

Table 3: Distribution the number of children of married respondent

Children of Respondents	Frequency	Percentage
No Child	9	6.0
1-2 person	38	25.3
3-4 person	87	58.0
5-6 person	10	6.7
More than 6 person	6	4.0
Total	**150**	**100**

Table 4: Distribution of respondent's working status

Respondents Working Status	Frequency	Percentage
Housewife	110	73.3
Unemployed	11	7.3
Employed	21	14.0
Others	8	5.4
Total	**150**	**100**

Table 5: Distribution of the age at marriage or first sexual act of respondent

Age at marriage or first sexual act of respondent	Frequency	Percentage
15-17 years	19	12.6
18-20 years	23	15.3
21-23 years	45	30.0
24-26 years	29	19.4
27-30 years	20	13.4
31+ years	14	9.3
Total	**150**	**100**

Figure 2: Distribution the number of pregnancies/parity of respondents
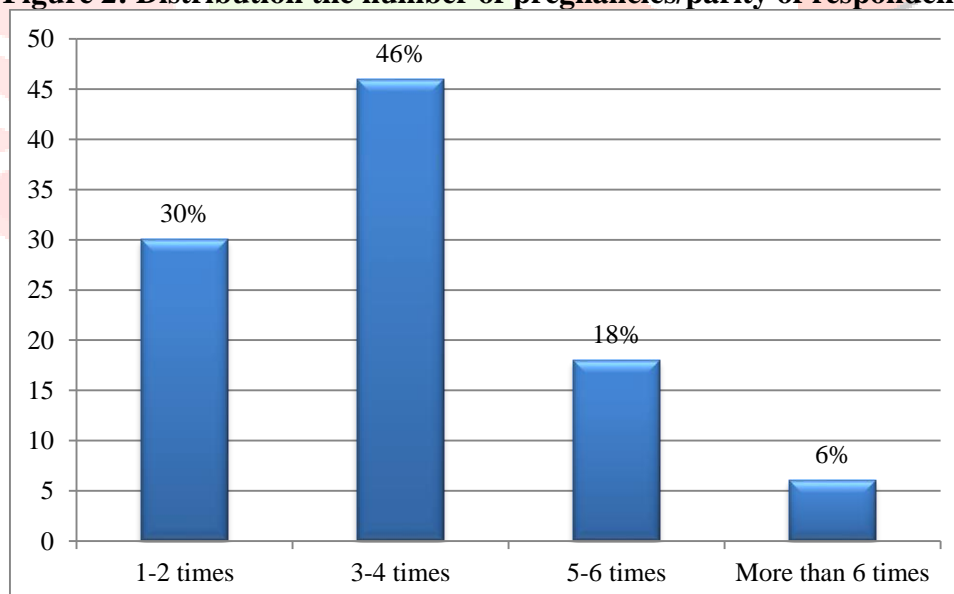
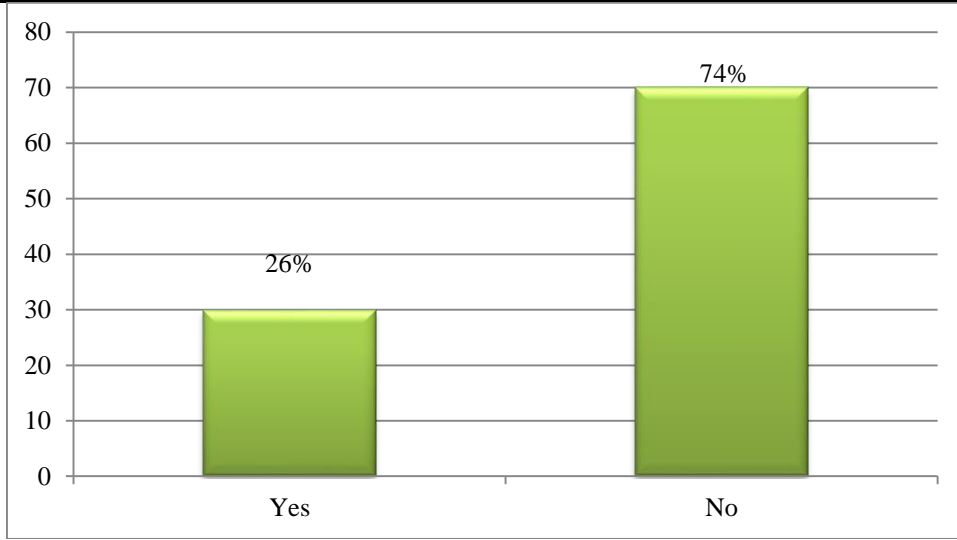**Figure 3: Percentage of contraceptive user**
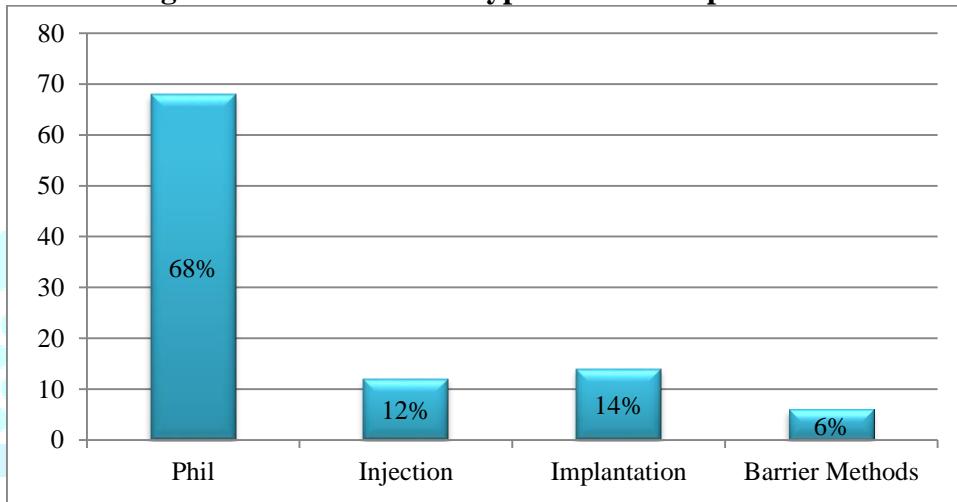
Figure 4: Distribution of types of contraceptive user
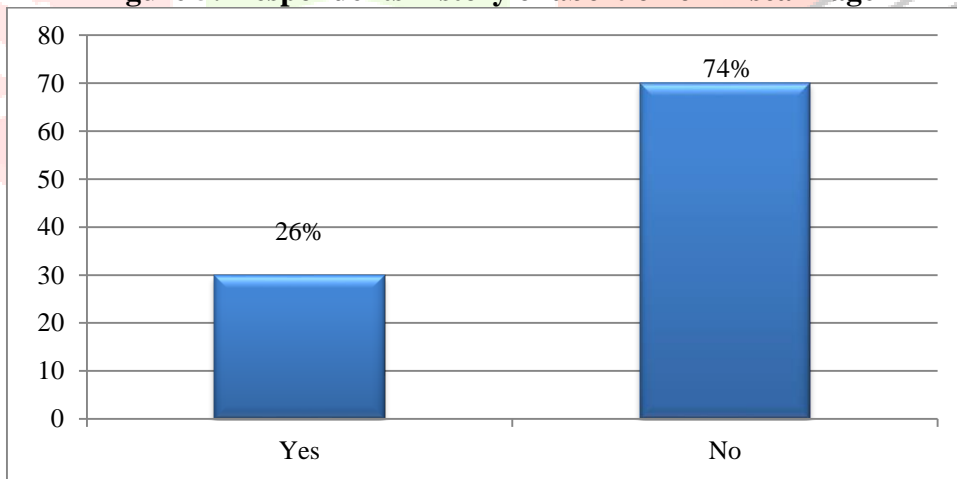

Figure 5: Respondents history of abortion or miscarriage

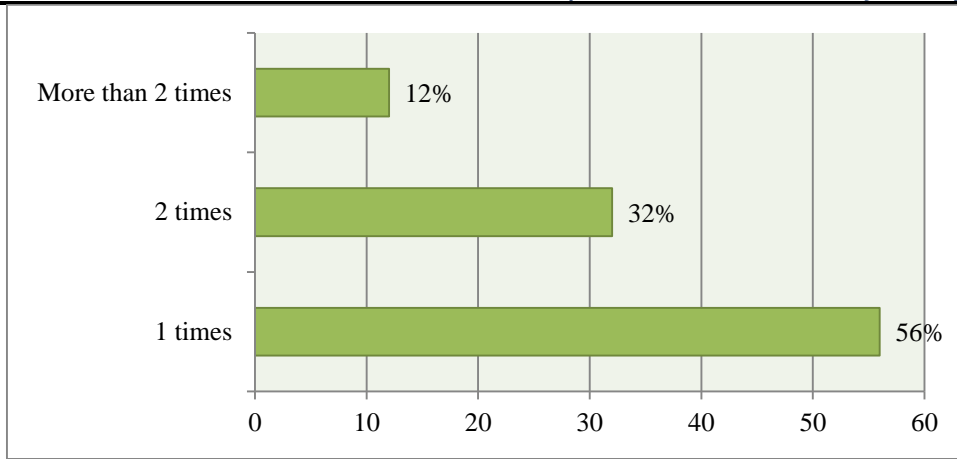**Figure 6:** Number of abortion or miscarriage of respondents

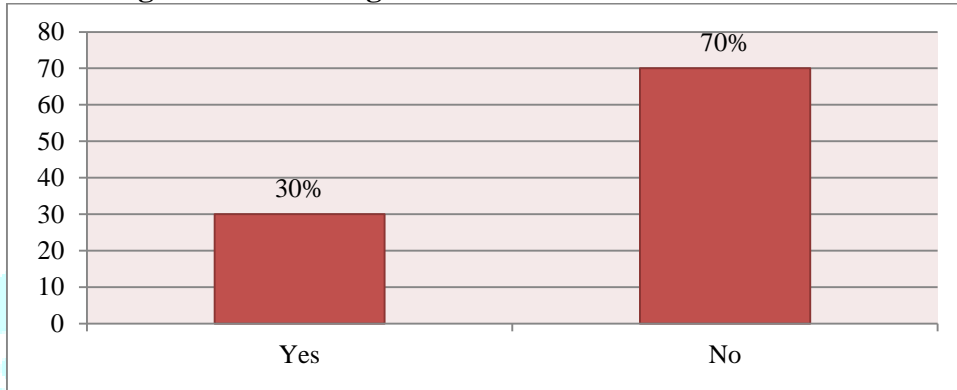**Figure 7: Knowledge about the name of cervical cancer**

Table 6: Knowledge about the greatest risk of cervical cancer occurs at what age?

Age at marriage or first sexual act of respondent	Frequency	Percentage
30-35 years	13	8.7
36-40 years	72	48.0
41-45 years	44	29.3
46-50 years	9	6.0
>60 years	4	2.7
Don't know	8	5.3
Total	**150**	**100**

Figure 8: Have you any family history of cervical cancer?
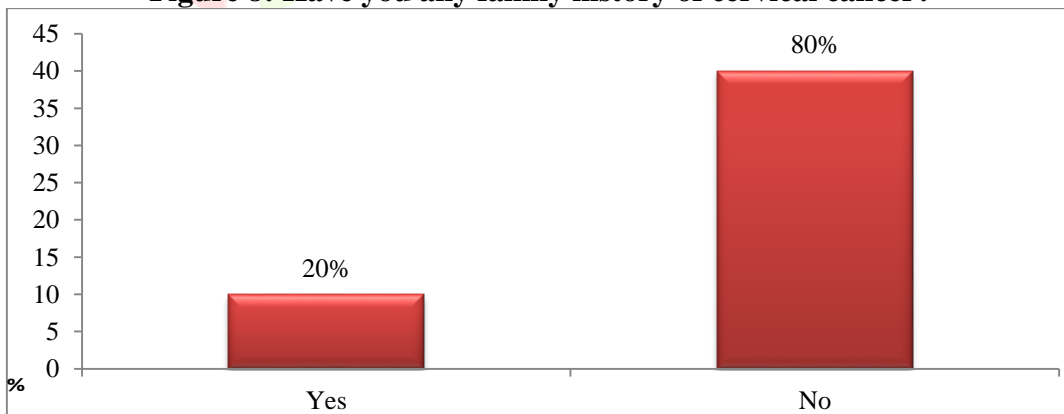

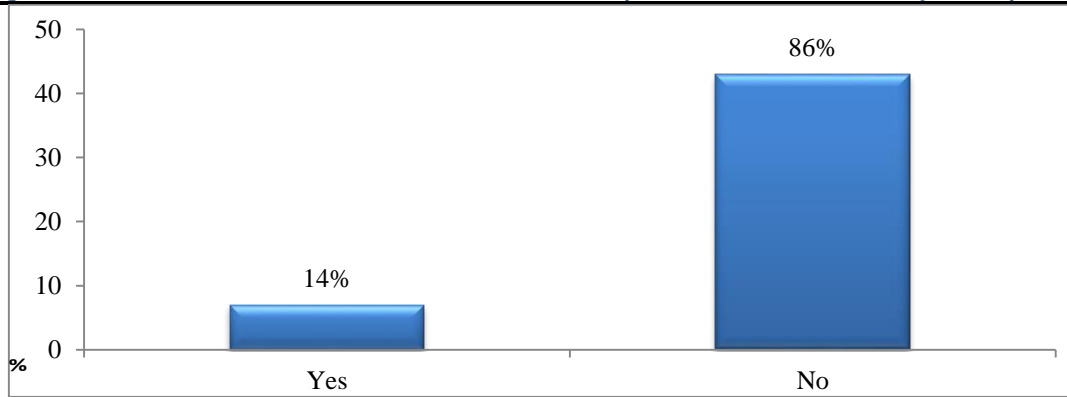**Figure 9: Distribution of screening for cervical cancer of respondents**
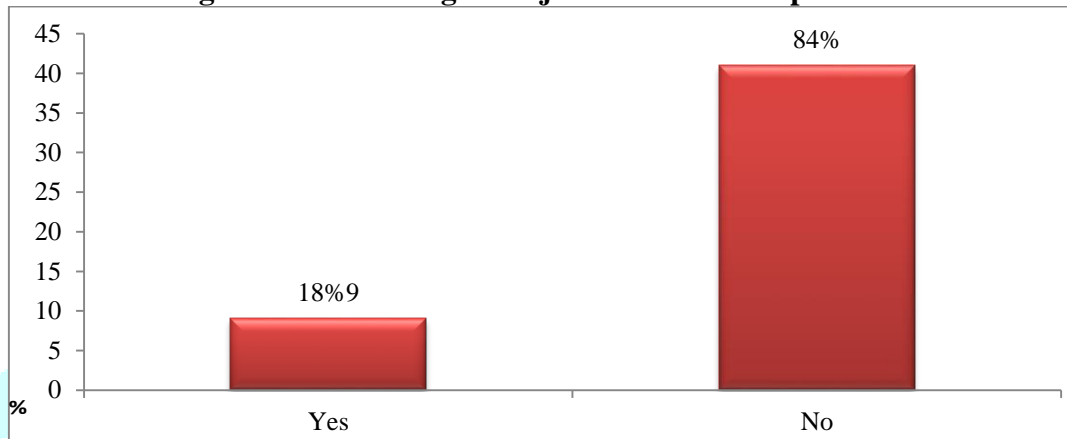
Figure 10: Percentage of injured cervix of respondents

Table 7: Mode of delivery of respondents

Respondents mode of delivery	Frequency	Percentage
Normal vaginal delivery	135	90.0
Assisted vaginal delivery	15	10.0
Total	**150**	**100**

Table 8: Suffering different problem of respondent

Suffering different problem of respondent	Frequency	Percentage
Urogenital tract infection	20	13.3
History of STIs (STDS)	15	10.0
Excessive vaginal discharge	22	14.7
Itching on external anogenitalia	17	11.3
Ulcer on external anogenitalia	13	8.7
Lower abdominal pain	5	3.3
Lower backache	9	6.0
Pain during sexual intercourse	18	12.0
Bleeding after sexual intercourse	11	7.3
Intermenstrual bleeding	20	13.4
Total	**150**	**100**

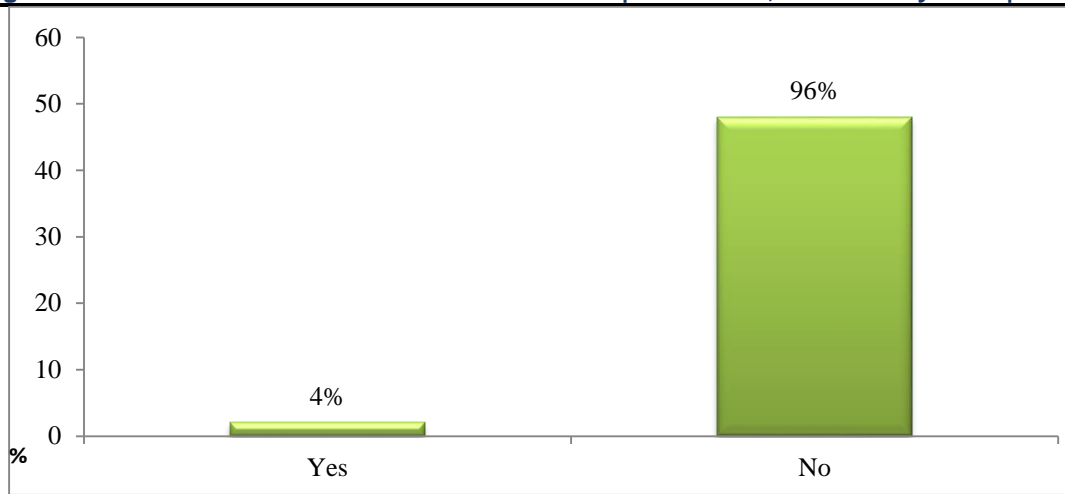**Figure 11: History of episiotomy of respondents**
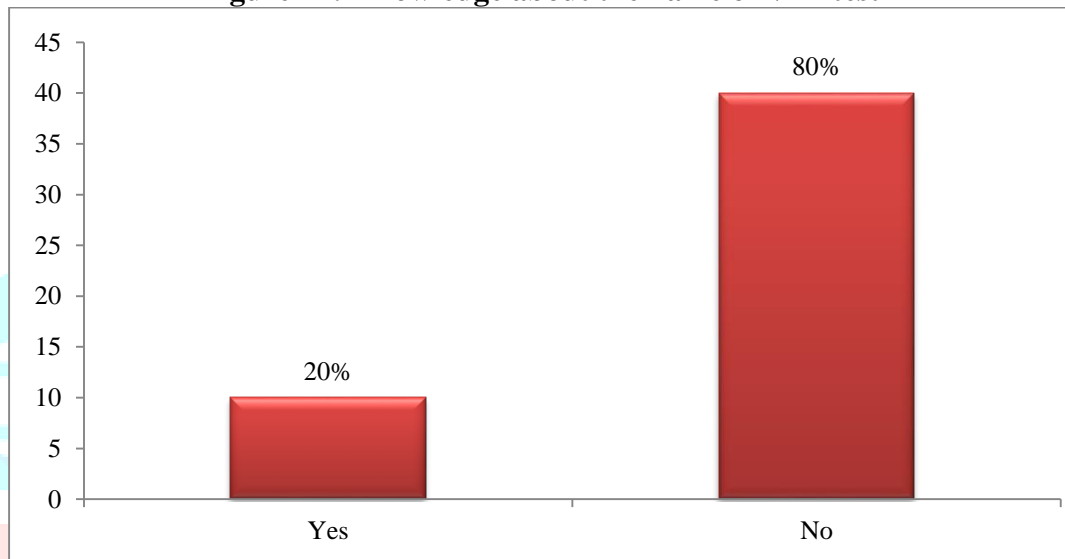
Figure 12: Knowledge about the name of VIA test

Table 9: Knowing sources area of about VIA test of respondents

Age at marriage or first sexual act of respondent	Frequency	Percentage
Health worker	13	8.7
Doctor	23	15.3
Nurse	27	18.0
Friend	4	2.7
Television	2	1.3
Relatives	3	2.0
Don't know	78	52.0
Total	**150**	**100**

DISCUSSION

In this study about cervical cancer risk factors, feasibility and acceptability of VIA screening method in Bangladesh, findings showed that women, who have uterine cervix laceration, assisted vaginal delivery, female genital mutilation, or episiotomy, are at an increased risk of being positive with VIA test. Women with cervical cancer who are elderly, not covered by health insurance, of African ethnicity, and living in a rural area are more likely to be diagnosed at an advanced stage of cervical cancer in Sudan. Use of VIA and Pap smear screening tests identified 12.7% positive women, VIA significantly detected more positive women than Pap smear (7.6% versus 5.1%; p=0.004). VIA has higher sensitivity and lower specificity compared to Pap smear. Also VIA was acceptable to majority of screened women and surveyed physicians have adequate knowledge on cervical cancer and screening methods.

The overall findings indicate that VIA is useful for screening of cervical cancer in primary health care settings in the study area; however, positive results need to be confirmed by colposcopy and biopsy. It also showed that VIA is a feasible and acceptable cervical cancer screening method in a primary health care setting in the Sudanese context.

CONCLUSION

The study showed that women, who had trauma to their cervix, such as uterine cervix laceration, assisted vaginal delivery, female genital mutilation, or episiotomy, are at an increased risk being screened positive with VIA. The results showed trauma to the cervix as being a risk factor for infection which may result in cervical cancer. This finding points to the importance of safe delivery facilities and establishing guidelines and standard operation procedures for performing assisted vaginal delivery and episiotomy in obstetrics practice. Also, abandonment of female genital mutilation can have a great effect in decreasing the incidence of cervical cancer. Training of birth attendants on safe delivery services and increasing community awareness about female genital mutilation risks can play a great role in talking of the problem. Further decision on the introduction of cervical cancer screening in Khartoum state in Sudan is critically needed.

Women with cervical cancer, who are elderly, not covered by health insurance, are of ethnicity and live in rural area, are more likely to be diagnosed at advanced stages of cervical cancer in Bangladesh. These women should be targeted by cervical cancer screening, health education programme and health insurance coverage.

The results of this study showed that VIA has high sensitivity and lower specificity compared to Pap smear. Combination of VIA/ Pap increased sensitivity and specificity of detection of cervical cancer. The findings of study indicate that VIA is useful for screening of cervical cancer in primary health care setting and it is also a feasible and acceptable screening method in the primary health care setting in Bangladesh.

The study findings showed that obstetricians /gynecologists have more adequate knowledge on cervical cancer screening methods than general practitioners. More efforts are needed to develop and to adapt new strategies for promotion and improvement of cancer prevention methods in continuous medical education for general practitioners and in medical education curriculum at medical schools in Bangladesh.

RECOMMENDATIONS

Based on the study findings, the following recommendations can be used to initiate and establish preventive services for cervical cancer in Bangladesh.
1. Development of population-based cervical cancer screening programme.
2. Integration of cervical cancer screening programme in primary health care services.
3. Implement VIA as primary screening test for cervical cancer in Bangladesh.
4. Benefit from physicians' knowledge and practice about cervical cancer in the development of cervical cancer preventive services in urban city.
5. Endorsement of strict legislation for prohibition of female circumcision practice.
6. Increase training of birth attendants on safe delivery.
7. Increase health insurance coverage for poor population in rural areas.
8. Development of research agenda on the determinants of cervical cancer and interventional methods.
9. Case-control design is definitely needed to address risk factors of cervical cancer, specifically female genital mutilation, episiotomy and assisted delivery.

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