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Nurses' Knowledge about VIA Test for Screening of Cervical Cancer at via Center

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A R T I C L E I N F O

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A B S T R A C T

This cross-sectional type of descriptive study has conducted at VIA centers of Bogra (Shaheed Ziaur Rahman Medical College Hospital, Bogra, Mohammed Ali Hospital, Bogra, TMSS Medical College and Rafatullah Community Hospital, Bogra, Maternal and Child Welfare Center (MCWC) Bogra, Gabtali Health Complex, Bogra). The study was carried out from October 2017 to January 2018.A total number of 30 nurses who met the inclusion criteria were recruited into this study in order to overcome non response subjects. The instrument questionnaire was divided into 2 sections (1) Demographic part (2) Specific part. The sample size is 30. Regarding professional qualification out of 30 respondents, 24 respondents have passed Diploma in Nursing Science and Midwifery and their percentage is 80, 6 respondents have passed B. Sc in Nursing and their percentage is 20. Regarding length of service, out of 30 respondents, 16 respondents' length of service were 1-10 years and their percentage is 33.33, the length of service of 14 respondents were 11-20 years and their percentage is 66.67. Among the out of 30 respondents, 30 respondents know about the VIA test and their percentage is 100.In this study, among 30 respondents. 18 respondents mentioned that VIA is a screening test and their percentage is 60. 12 respondents mentioned that VIA is routine test and their percentage is 40. Regarding purpose of VIA test, 30 respondents, 20 respondents mentioned that purpose of VIA test is to screen out the cancer of cervix and their percentage is 66.67. The study shows that among 30 respondents, 18 respondents mentioned 2 indication of VIA (10 yrs after marriage, age above 30 yrs) and their percentage is 60 and 9 respondents mentioned 3 indications of VIA (married, 10yrs after marriage, age above 30 yrs) and percentage is 30. Regarding the contraindications out of 30 respondents, 12 respondents mentioned 3 contraindications of VIA (unmarried, pregnancy, not with in 6 months after delivery) and their percentage is 40 and 11 respondents mentioned 2 contraindications of VIA (unmarried and pregnancy) their percentage is 36.67.

KEYWORDS: VIA Test, Cervical Cancer, Nurses Knowledge, and Human Papilloma Virus

INTRODUCTION

Cervical cancer is the second most common cancer in women worldwide. About 470000 women are reported with cervical cancer annually with 80% of these occurring in developing countries.

According to world health organization is reports, about 260000 women have died of cancer in 2005 nearly 95% of them in developing countries. In developing countries cervical cancer is major cancer, cervical cancer is the most common reproductive cancer in women in Bangladesh. Cervical cancer continues to be a major public health problem in Bangladesh with an incidence of 17686 and mortality of 10364 cases in the year 2008. In Bangladesh cervical cancer constitute about 22-29% of female cancer in different areas of the country. Cervical cancer continues to be a major public health problem in India with an incidence of 134420 cases and mortality of 72825 cases in the year 2008. Cervical cancer is the most common reproductive cancer in women in Bangladesh and most women come for diagnosis and treatment when it is too late. Only a few organized cervical screening programs exists in Bangladesh, even though the disease burden in high, many studies now provide evidence of the feasibility and cost effectives of screening and treatment process for cervical cancer prevention. To support early detection of precancerous conditions and to prevent cervical cancer, Bangladesh undertook a screening programme using visual inspection of the cervix with acetic acid through a public sector programme. Studies have also shown the safety, feasibility and efficacy of conservative treatments for pre-cancer. Visual inspection of cervix with acetic acid is a simple, inexpensive test with moderate sensitivity and specificity for screening that can be combined with simple treatment procedures for early cervical lesion. Evaluation of the pilot programmes performance showed that VIA can be carried out by trained doctors, nurse, and paramedical workers in Bangladesh, even though that level of resources is poor, and women their partners and families are often not aware of the disease and its consequences. VIA is feasible in many low resource areas where it is difficult to sustain high quality cytology programme. The program now needs to move from opportunistic screening to population

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based systematic screening of women over age 30. More providers need to be trained and clinically better equipped. The links between screening, diagnosis and treatment need to be improved and the false positive rate of VIA tests greatly reduced. It is only when we are achieved high coverage that reduce rate of cancer can be ensured. In has a prolonged incubation period. So early diagnosis with screening method it can be prevented. Visual inspection of cervix with acetic acid had currently proposed as an alter native to Pap test for screening of cervical cancer in low resource countries.

Objective of VIA test:

To evaluate or assess the visual inspection of cervix with acetic acid (VIA) as a potential alternative to pap test in the detection of precancerous a cancerous lesion of cervix.

Risk factors of cervical cancer:

1. Human papilloma virus infection.
2. Smoking.
3. Chlamydia infection.
4. A diet low in fruits and vegetables.
5. Being overweight.
6. Long term use of oral contraceptives.
7. Intrauterine device.
8. Having multiple full-term pregnancies.
9. Being younger than 17 yrs at first full term pregnancy.
10. Having a family history of cervical cancer.
11. Economic status.

Sign and symptoms of cervical cancer:

1. Abdominal bleeding, such as bleeding between menstrual periods, after sex, after a pelvic exam or after menopause.
2. Discharge that's unusual in amount, color, consistency or smell.
3. Pelvic pain.
4. Increased vaginal discharge.
5. Pain during sexual intercourse.

OBJECTIVE

General Objective:

To assess the nurses' knowledge about VIA test for screening of cervical cancer at VIA centers.

Specific Objective:

- To elicited the purpose of VIA by the respondents.
- To explore the knowledge of the respondents about the indication of VIA.
- To elicited the steps of procedure of VIA.
- To assess the knowledge of the respondents about the contraindication of VIA.
- To mentioned by the respondents about the effectiveness of the VIA as a screening test.

REVIEW OF LITERATURE

Cancer of the cervix develops in the lining of the cervix, at the neck of the uterus. It usually develops over time (more than ten years). Normal cervical cells with time can undergo changes to become precancerous and then cancerous. The term used to describe these abnormal changes is cervical intraepithelial neoplasia (CIN). CIN is classified according to the level of cell abnormality. Low-grade CIN denotes a minimal change in the cells and high-grade CIN indicates a higher level of abnormality (WHO, 2006).

Cervical cancer is the second commonest cancer in women, worldwide; around 450,000 cases of cancer of the cervix are diagnosed each year (Stanley j, 2011). Cancer of the cervix is the leading cause of cancer death among women in the developing world. North America and Europe where aggressive screening programs and prompt available management brought down cancer of the cervix incidence levels in 1960s and 1970s (Gakidou et al, 2008). Screening programs based on repeated cytology requires skilled technical personnel (cytotechnicians, obstetric and gynecogists, pathologists) to implement. For the positive results trained health workers and equipment are needed for precancer management (WHO, 2006). Kenya has made several efforts in the past decade to tackle this challenge, but the goal of a nationwide, sustainable and affordable program to control cancer of the cervix has remained elusive (MoH, 2007).

Cancer of the cervix screening and management are justified based on the principles of public health screening. Slow progression of precancerous lesions to cancer of the cervix provides a window of 10 years or more to detect and manage the lesions, therefore preventing their progression to invasive cancer. It is possible to implement effective cancer of the cervix prevention programs in low-resource settings. The program should aim to achieve high screening coverage (more than 70%), offer an effective and acceptable test, and ensure appropriate management for test-positive women (ACCP, 2004).

The cervix is located in the lower part of the uterus also called uterine cervix; it connects the body of the uterus by the cervix part called endocervix to the birth canal by the part named exocervix. Cells covering the cervix are referred to as squamous cells and the glandular cells (American Cancer Society, 2010).

Cervical cancers are a cancer malignant of the cervix or within the cervical area. It may from in the interior lining of the cervix, junction of the vagina and the uterus. (Saonere 2010, 314-323). Cervical cancer begins to develop in the cells around the cervix. Pre-cancerous cells which are described as cervical intraepithelial neoplasia (CIN), squamous intraepithelial lesion (SIL) and dysplasia. The pre-cancerous cells cancer can fully grow into cancer.

MATERIALS AND METHODS

1. **Type of study**: Cross sectional type of descriptive study.

2. **Place of study:** Shaheed Ziaur Rahman Medical College Hospital, Bogra, Mohammed Ali Hospital, Bogra, TMSS medical College and Rafatullah Community Hospital, Bogra, Maternal and Child Welfare Center (MCWC) Bogra, Gabtali Health Complex, Bogra.

3. **Study period**: The study was conducted from September to December 2017.

4. **Study population**: Staff nurse (aged 20-50 years) who are working at VIA centers, Bogra.

5. **Sample size**: 30

6. **Data collecting method:** Asking questions/ Interviewing.

7. **Data collecting instrument**: Structured questionnaire.

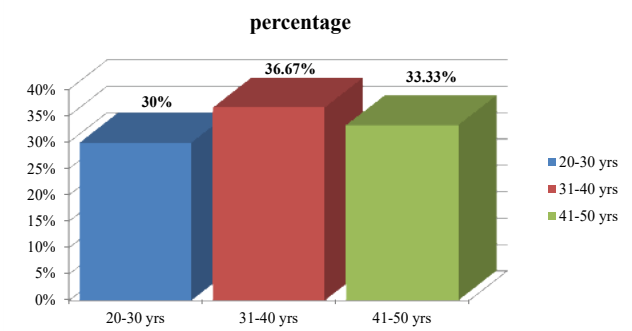

Figure 1: Distribution of the respondents according to their age group.

Figure 1 shows that out of respondents, 11 respondents were in the age group of 31-40 years and their percentage is 36.67%, 10 respondents were in the age group of 41-50 years and their percentage is 33.33% and 9 respondents were in the age group of 20-30 years and their percentage is 30.

Professional qualification	Frequency	Percentage (%)
Diploma in Nursing Science and Midwifery	24	80
B. Sc in Nursing	6	20
Total	**30**	**100**

Table 1: Distribution of the respondents by professional qualification.

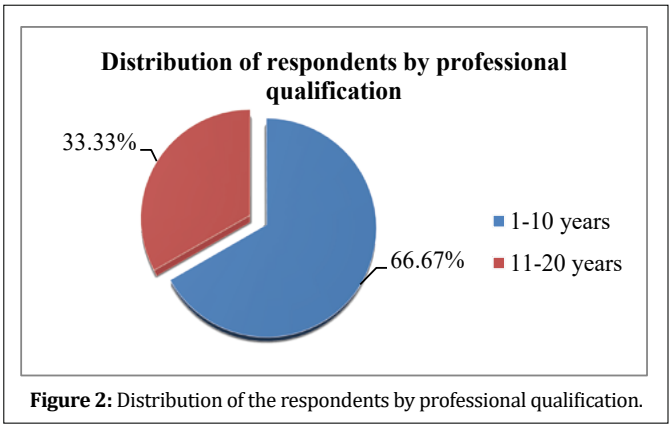

Figure 2: Distribution of the respondents by professional qualification.

Length of service	Frequency	Percentage (%)
1-10 years	16	33.33
11-20 years	14	66.67
Total	**30**	**100**

Table shows that out of 30 respondents, 16 respondents' length of service were (1-10 years) and their percentage is 33.33, 14 respondents' length of service were (11-20 years) and their percentage is 66.67.

Number of the types of VIA test	Frequency	Percentage (%)
Number of respondents who mentioned (screening test)	18	60
Number of respondents who mentioned (Routine test)	12	40
Total	**30**	**100**

Table 2: Distribution of the respondents by the knowledge of type of VIA test.

Table shows that, among 30 respondents. 18 respondents mentioned that VIA is a screening test and their percentage is 60. 12 respondents mentioned that VIA is routine test and their percentage is 40.

Number of the purpose of VIA test	Frequency	Percentage %
Number of respondents who mentioned it is for screening of cervix (screening for cancer cervix)	20	66.67
Number of respondents who mentioned of VIA to detect of cellular change of cervix for (detection the cellular change of cervical cells)	10	33.33
Total	**30**	**100**

Table 3: Distribution of the respondents by the opinion of purpose of VIA test.

Table shows that among 30 respondents, 20 respondents mentioned that purpose of VIA test is to screen out the cancer of cervix and their percentage is 66.67. 10 respondents mentioned that purpose of VIA test to detect the cellular change in the cervix and their percentage is 33.33.

Number of the indication of VIA test	Frequency	Percentage %
Number of the respondents who mentioned single indication of VIA	03	10
Number of the respondents who mentioned 2 indications of VIA	18	60
Number of the respondents who mentioned 3 indications of VIA	09	30
Total	**30**	**100**

Table 4: Distribution of the respondents by the knowledge of the indication of VIA test.

In this Table, it can be seen that 30 respondents, 18 respondents mentioned 2 indication of VIA (10 yrs after marriage, age above 30 yrs) and their percentage is 60 and 9 respondents mentioned 3 indications of VIA (married, 10 yrs after marriage, age above 30 yrs) and their percentage is 30 and the test mentioned single indications of VIA (age above 30 yrs) and their percentage is 10.

Number of the steps in procedure of VIA test	Frequency	Percentage %
Number of respondents those mentioned 3 steps	04	13.33
Number of respondents who mentioned 4 steps	16	53.33
Number of respondents who mentioned 5 steps	10	33.33
Total	**30**	**100**

Table 5: Distribution of the respondents by the steps in procedure of VIA test.

Table 5 show that out of 30 respondents, 16 respondents mention 4 steps in procedure of VIA (Position of the patient in the dorsal lithotomy or frog leg position, Insert a speculum in to the vagina and visualize the cervix, Apply acetic acid using a cotton swab wait for one minute, Inspect the cervix again and note any lesions or color change) and their percentage is 53.33. 10 respondents mentioned 5 steps and their percentage is 33.33 and the rest 4 respondents mentioned 3 steps in procedure (Position the patient in the dorsal lithotomy or frog leg position, Insert a speculum in to the vagina and visualize the cervix, Apply acetic acid using a cotton swab wait for one minute) and their percentage is 13.33

Number of the contraindication of VIA test	Frequency	Percentage %
Number of the respondents who mentioned single contraindication of VIA	07	23.33
Number of the respondents those mentioned 2 contraindications	11	36.67
Number of the respondents who mentioned 3 contraindications of VIA	12	40
Total	**30**	**100**

Table 6: Distribution of the respondents by the knowledge of the contraindication of VIA test.

Table 6 shows that, out of 30 respondents, 12 respondents mentioned 3 contraindications of VIA (Unmarried, pregnancy, not within 6 months after delivery) and their percentage is 40 and 11 respondents mentioned 2 contraindications of VIA (unmarried and pregnancy) their percentage is 36.67 and the rest 7 respondents mentioned single contraindication of VIA (Unmarried) and their percentage is 23.33

Number of the effectives of VIA test to detect cervical cancer	Frequency	Percentage %
Number of the respondents who told VIA is partially effective	21	70
Number of the respondents whose answer were VIA is effective	09	30
Total	**30**	**100**

Table 7: Distribution of the respondent by the opinion about the effective of VIA test to detect cervical cancer.

Table 7 shows that out of 30 respondents, 21 respondents mentioned VIA is partially effective to detect ca cervix and their percentage is 70 and 9 respondents mentioned effective of VIA test is effective to detect ca cervix and their percentage is 30.

DISCUSSION

Cancer of the cervix develops in the lining of the cervix, at the neck of the uterus. It usually develops over time (more than ten years). Normal cervical cells with time can undergo changes to become precancerous and then cancerous. The term used to describe these abnormal changes is cervical intraepithelial neoplasia (CIN). CIN is classified according to the level of cell abnormality. Low-grade CIN denotes a minimal change in the cells and high-grade CIN indicates a higher level of abnormality (WHO, 2006).

Cervical cancer is the second commonest cancer in women, worldwide; around 450,000 cases of cancer of the cervix are diagnosed each year (Stanley j, 2011). Cancer of the cervix is the leading cause of cancer death among women in the developing world. North America and Europe where aggressive screening programs and prompt available management brought down cancer of the cervix incidence levels in 1960s and 1970s (Gakidou et al,2008). Screening programs based on repeated cytology requires skilled technical personnel (cytotechnicians, obstetric and gyneogists, pathologists) to implement. For the positive results trained health workers and equipment are needed for precancer management (WHO,2006). Kenya has made several efforts in the past decade to tackle this challenge, but the goal of a nationwide, sustainable and affordable program to control cancer of the cervix has remained elusive (MoH,2007).

There are three main screening tests for cancer of the cervix that includes cytology based (liquid-based cytology and Pap smear), Human Papilloma Virus (HPV) testing, and Visual inspection of the cervix method (VIA and VILI). Conventional cytology (Pap smear) entails a health provider taking a sample of cervical cells and examination by trained cytotechnicians in a laboratory. Liquid-based cytology (LBC), involves obtaining a sample of cervical cells with a small brush, immerse them in special liquid, and sending them to a laboratory. In HPV DNA testing or Molecular testing for human papilomavirus (HPV), the women herself takes a swab and sends the contents to a laboratory. It's very hard to avail these tests in low-resource setting. And therefore, they are almost nonexistent. There are two main Visual methods, Visual inspection with acetate (VIA) or with Legol's iodine (VILI) A trained health care provider examines the cervix after staining it with acetate (VIA) or with iodine (VILI). The methods are safe, reliable, and valid and it is possible to avail them in low economic environments (WHO,2006) the test should be done after every five years until the women is 50 years of age thence Pap smear or HPV tests used. The recommended age when using VIA screening are women between 25-49 years of age (primary target). Women under 25 years of age should only be screened when they have a high risk of cervical abnormalities (these includes women who have had, multiple partners, early sexual exposure, are HIV positive or had previous abnormal screening results or CIN). VIA/VILI is not appropriate for women above 50 years. Those above this age should be screening at five-year intervals using pap smear or HPV testing techniques (MOPHS/MOMS,2012).

Cervical cancer is a cancer malignant of the cervix or with the cervical area. It may from in the interior lining of the cervix, junction of the vagina and the uterus (Saonere 2010, 314-323). Cervical cancer begins to develop in the cell around the cervix. Pre-cancerous cells which are described as cervical intraepithelial neoplasia (CIN), squamous intraepithelial lesion (SIL) and dysplasia. The pre-cancerous cells cancer can fully grow into cancer.

CONCLUSION

The study finding showed that nurses a have adequate knowledge on cervical cancer screening methods (VIA). More efforts are needed for promotion and improvement of cancer prevention methods in continuous medical education other nurses who are not trained. The results of this study showed that VIA has high sensitivity and lower specificity compared to Pap smear. Combination of VIA/Pap smear increased sensitivity and specificity of detection of cervical cancer.

Recommendations

Based on the study findings, that the flowing recommendations can be used to initiate and establish preventive services for cervical cancer.

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- Development of population-based cervical cancer screening programme.
- Integration of cervical cancer screening programme in primary health care service.
- Implement VIA as primary screening test for cervical cancer in our country.
- Increase community awareness about health consequences of female genital mutilation.
- Increase training of birth attendants on safe delivery.
- The finding of study indicate that VIA is useful for screening of cervical cancer in primary health care level and it is also a feasible and acceptable screening methods in the primary health care setting it should be expanded.

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