Knowledge Regarding the Prevention of Cervical Cancer of Adolescent Girls at Rajshahi Division

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Abstract: Introduction: The second most frequent Cancer in women in the world, cervical Cancer, is a major public health issue. Consequently, more than 270,000 women die each year from cervical Cancer, with more than 85% of these deaths occurring in countries with a low or middle income. Objective: The descriptive cross-sectional type of descriptive study was carried out on knowledge regarding on Prevention of Cervical Cancer among adolescent girls. Research Methods: This type of research is a cross-sectional descriptive study performed to assess the knowledge regarding the Prevention of cervical Cancer among adolescent girls in the Joypurhat govt. Girl's high school in Joypurhat Sadar. The study was carried out from January 2018 to December 2019. Results: A total Number of (N=100) students were selected for the study the age of whom was, the age of the respondents ranged from 14-17 years of age. The majority of respondents are 15 years 61%, 14 years 24%, 16 years 13%, and 17 years only 2%. Among the total number of respondents, 94 (94%) indicated that they were Muslim, 4(4%) were Hindu, and only 2(2%) were Christian. There was no any Buddhist found in my study. The majority of the respondent's father's occupations from the sample, 51% are business, 40% are Govt. employee, 5% are farmer, 1% is retired, and 3% are dead. The majority of the respondent's mother's Education from the sample is 30% completed primary level, 26% completed Secondary School Certificate (S.S.C),17% are preparatory, and 8% are B. Sc,14% are capable of reading and writing, and only 4% are illiterates found the study. Among the total number of respondents, Mother Occupations, 95% were Housewife, 4% were Govt. employees, and 1% was other workers. All of the students are heard of the term cervical Cancer. This indicates that many of the respondents know about Cervical Cancer. They had knowledge regarding on prevention of Cervical Cancer among adolescent girls. Conclusion: A study found that adolescent girls may be more aware of the preventive features of cervical Cancer if they are educated about the disease frequently.

Keywords: Cervical Cancer, Perception, Preparedness, Preventive Measures, Young Girl.

INTRODUCTION

Cancer forms in the cervix's tissues (the organ is connecting the uterus and vagina). It is usually slow-growing cancer that may not have symptoms but can be found with regular Pap tests (a procedure in which cells are scraped from the cervix and looked at under a microscope). Cervical Cancer is almost always caused by human papillomavirus (HPV) infection [1]. Cervical cancer is defined as abnormal cell proliferation in the cervix (or) abnormal cell growth in the cervix [2].

Women's health issues have become a focus for science and politics. Women's work roles, possible exposure to workplace hazards, social class, social roles, social stress, access to health care, and health behaviors are the factors that act together to help determine women's health and wellbeing. Cervical Cancer is the second most common cancer worldwide; it is a leading cause of death in women's world. The predominant risk factor is persistent infection with human papillomavirus (HPV), which is now well established. Despite being the...
commonest Cancer and the fact that it is a type of Cancer. This can be detected early by sensitive screening methods [3].

According to "NATIONAL CANCER CONTROL PROGRAMME," the current status and strategies reveal that Cancer has been one of India's tenth leading causes of death. It is estimated that there are nearly 2-2.5 million cancer cases. Over 7 lakes are new cases, and 3 lake deaths occur annually due to Cancer. National cancer registration program indicates that the leading sites of Cancer are cervix, breast and oral cavity among women [4]. The "AMERICAN CANCER SOCIETY estimated that 10,370 new cases of invasive cervical Cancer would be diagnosed in the U.S. in 2005. During the same year, 3,170 patients were expected to die of Cervical Cancer among the age group of 20-39 years [5]. Cervical cancer is the third most common form of gynecologic Cancer. The advanced disease often has postcoital bleeding, pelvic or sciatic pain, and a thin watery discharge. Guidelines recommend that screening begins when a woman becomes sexually active or by age 18 years. Cervical cytology aims to detect pre-cancerous lesions and treat them before they become malignant. The National Health Service (N.H.S.) A cervical screening program was launched in India in 1990. Its aim was "to cut mortality from cervical cancer by 20 percent or more by 2000". A target was achieved in 1996 [6].

About one-fifth (22.23%) of the world population is adolescents. Despite this, their reproductive health needs are poorly understood and ill-served. Adolescents often have poor information about reproductive health problems. Overall, adolescents worldwide and in developing countries are at greater risk of adverse consequences of inadequate reproductive health, such as "Cervical cancer."

Disease found early is more easily treatable, and primary detection through preventive health care practices is quite ideal; understanding the risk factors and disease provides an excellent opportunity for the health care provider through Education and screening to influence the quality of life and mortality due to cancer in women. National women's health initiatives have promoted a critical look at the national cancer research effort as it relates to women. WOMEN'S HEALTH HAS BECOME A TOPIC OF NATIONAL IMPORTANCE. Women live longer than men, but studies show excessive morbidity for women.

**OBJECTIVES**

**General Objectives**

The study will be carried out to assess the knowledge on preventing cervical Cancer among adolescent girls.

**Specific Objectives**

- To find out the socio-demographic characteristic of the respondent.
- To assess knowledge on cervical Cancer.
- To assess knowledge on the responsible organism of cervical Cancer.
- To assess knowledge on preventive measures for cervical Cancer.
- To assess knowledge on the most vulnerable group of cervical Cancer.
- To assess knowledge on care and complication of the cervical cancer patient.

**REVIEW OF LITERATURE**

Million for women who consider future pregnancy [7]. Antedate the development of invasive cancer by several years. The Pap test is a central part of a strategy designed to prevent invasive cancer development. Pap-smear screening is designed to detect precursor lesions in the cervical epithelium, which may cause disease at an early stage. In contrast to other screening strategies, such as mammography, which improves survival by detecting malignant on a global scale, however Cancer of the cervix is a major cause of death, especially in Third World countries, where such screening is often not routinely performed.

Because cervical Cancer is a potentially preventable disease, it is important to be aware of the risk factors, screening techniques, and available diagnostic options, with special attention to the management of the pre-invasive disease. This review concentrates on the pathogenesis and management of squamous cell carcinoma of the cervix, which accounts for most cervical cancer cases in the United States.

Cervical Cancer is a worldwide public health problem [8]. It is the most common gynecological Cancer following breast cancer in almost always developing countries [9]. In 2005 in the United States, 10,370 new cases were estimated, and 3,710 deaths occurred [10]. 42% of cervical cancer patients are younger than 45 years old, and about 30% of cervical Cancer are diagnosed in women in their reproductive age [11], which they consider their fertility and sexual problems.

**Prevention of Cervical Cancer**

Cervical Cancer is one of the very few preventable cancers known in the health field. Two main strategies can be used for prevention:

**Primary Prevention**

This involves preventing exposure to and transmission of HPV infection by means of safer sex practices. Strategies that promote behavior change, such as abstinence from sexual intercourse, mutual monogamy, and the use of barrier methods (male or female condoms), are included in primary prevention.
However, there is little evidence that infection with the HPV types that cause cancer of the cervix can be avoided by condom use [12]. Furthermore, because HPV infection is asymptomatic in most infected individuals and sexual behavior is not easy to control, stemming the transmission of HPV is a major public health challenge. In this regard, primary prevention is not an effective prevention strategy at a population level. It is an individual-based approach and thus would result in only a minor reduction in the incidence of cancer of the cervix. However, such an approach can be integrated into existing behavior-change STI/HIV prevention programs but must be complementary to population-based approaches (such as screening – see below). Because of the limited effectiveness of behavior change strategies, researchers are increasingly looking into the possibility of vaccines that could be used to prevent HPV infection. Most recently, researchers have shown success with HPV vaccine research [7].

They found that administering an HPV vaccine to HPV-negative women reduced the incidence of HPV infection and cervical dysplasia. Demonstrated the potential of HPV vaccines in reducing the incidence of cancer of the cervix, but more work is required as results need further evaluation.

Secondary Prevention (Cervical Cancer Screening)

Secondary prevention (early detection and treatment of disease) is the most effective and realistic strategy for the prevention of cervical cancer. Secondary prevention of cancer of the cervix refers to early detection and treatment of precursors [high-grade pre-cancerous lesions] of cancer of the cervix. Early detection of precursors of cancer of the cervix is achieved by cervical cancer screening. The point of cervical cancer screening is to screen women into two groups:

1) Those women that are more likely to develop cancer of the cervix (the presence of certain pre-cancerous lesions in the cervix of these women indicates that they are more likely to develop Cancer of the cervix). If these pre-cancerous lesions are identified and treated early, these women will not develop cancer of the cervix.

2) Those women are less likely to develop cancer of the cervix. Because cancer of the cervix has a long latent period and starts with a pre-invasive stage that is curable, it is possible to detect the disease early and take necessary steps to prevent progression to life-threatening incurable disease [13].

METHODS AND MATERIALS

The study was conducted at Joypurhat govt. Girl’s high school in Joypurhat Sadar. The total number of students studying in this school was 733. The study was conducted in 2 classes, class nine and class ten. The number of students studying in this class was 267. A total number of 100 students who met the following inclusion criteria were recruited for this study from January 2018 to December 2019.

SAMPLING CRITERIA

Inclusion Criteria

- They are in the age group of 15-17 years.
- Are willing to participate in the study.
- Can read and write English and Bengali.
- Are available at the time of the study.

Exclusion Criteria

- Are not in the age group of 16-20 years
- I cannot read and write English and Bengali.
- Are not available at the time of the study.

RESULTS

The results of knowledge regarding the prevention of cervical cancer among adolescent girls in girls high school are described in this chapter.

Table 1: Age distribution of the respondents

| Variable | Valid age | Number | Percentage |
|----------|-----------|--------|------------|
| Age      |           |        |            |
| 14 years | 24        |        | 24%        |
| 15 years | 61        |        | 61%        |
| 16 years | 13        |        | 13%        |
| 17 years | 2         |        | 2%         |

Table 1 shows that the majority of the respondents, 61%, were in age group of 15 years, the smallest number of the respondents, 2% were 17 years, 24% were in age group of 14 years, and 13% were in age group of 16 years.
Table 2: Marital status of the respondents

| Variable    | Parameters | Number | Percentage |
|-------------|------------|--------|------------|
| Marital status | Single     | 80     | 80%        |
|             | Married    | 20     | 20%        |
|             | Widow      | 0      | 0%         |

Table 2 shows that the majority of the respondents 80% were single, while 20% were married and 0% was widow.

Table 3: Distribution of Religion of the respondents

| Variable | Parameters | Number | Percentage |
|----------|------------|--------|------------|
| Religion | Muslim     | 94     | 94%        |
|          | Hindu      | 4      | 4%         |
|          | Christian  | 2      | 2%         |
|          | Buddhist   | 0      | 0%         |

Table 4, Figure 1 shows that the maximum numbers of student respondents 94% were Muslim, while 4% were Hindu and 2% were Christian in this school.
Table 4: Father’s Education of the Respondents

| Variable            | Parameters      | Number | Percentage |
|---------------------|-----------------|--------|------------|
| Father’s Education  | Illiterate      | 4      | 4%         |
|                     | Read and Write  | 15     | 15%        |
|                     | Primary         | 14     | 14%        |
|                     | Preparatory     | 15     | 15%        |
|                     | Secondary       | 29     | 29%        |
|                     | B.Sc/B.A        | 23     | 23%        |

Table 5 shows that the majority of the student’s Father’s Education is secondary level 29%, 23% B.Sc/B.A, Read and Write 15%, Primary 14%, Preparatory 15%, and only 4% are illiterate.

Table 6: Father’s Job of the Respondents

| Variable | Parameters      | Number | Percentage |
|----------|-----------------|--------|------------|
| Father’s Job | Farmer          | 5      | 5%         |
|            | Govt. Employee  | 40     | 40%        |
|            | Business        | 51     | 51%        |
|            | Retired         | 1      | 1%         |
|            | Dead            | 3      | 3%         |

Table 6: shows that the majority of the respondent’s fathers are businessmen 51%, 40% are govt. employee, 5% Farmer, 1% retired and 3% is dead.
Table 7: Mother’s Education of the respondents

| Variable          | Parameters      | Number | Percentage |
|-------------------|-----------------|--------|------------|
| Mother’s Education| Illiterate      | 5      | 5%         |
|                   | Read and Write  | 14     | 14%        |
|                   | Primary         | 30     | 30%        |
|                   | Preparatory     | 17     | 17%        |
|                   | Secondary       | 26     | 26%        |
|                   | University/graduate | 8 | 8%         |

Table 7 shows that most of the respondent’s mothers have primary Education 30%, H.S.C 26%, university 8%, Preparatory 17%, read and write 14%, and 5% are illiterate.

Table 8: Mother’s Job of the respondent

| Variable       | Parameters     | Number | Percentage |
|----------------|----------------|--------|------------|
| Mother’s Job   | Housewife      | 95     | 95%        |
|                | Govt. Employee | 4      | 4%         |
|                | Others work    | 1      | 1%         |

Table 8 shows that the maximum mother of the respondent is a Housewife, only 4% are Govt. employees, and 1% others work.
Table 9: Do you hear the term cervical cancer?

| Variable                      | Yes | No |
|-------------------------------|-----|----|
| Do you hear the term cervical cancer? | 100 | 0  |

Table 9 shows that 100% of respondents answered yes. That means they heard the term cervical cancer.

Table 10: Do you know who the most vulnerable group to Cervical Cancer is?

| Variable                              | Parameters | Yes | No |
|---------------------------------------|------------|-----|----|
| Do you know who the most vulnerable group of cervical Cancer is? |            |     |    |
| Married women                         | 95         | 95% | 5  | 5% |
| Unmarried women                       | 32         | 32% | 68 | 68%|
| Young age girl                        | 39         | 39% | 61 | 61%|
| Oldest women                          | 41         | 41% | 51 | 51%|

Table 10 shows the most vulnerable group of cervical Cancer. 95% of respondents answered as married women, 32% were unmarried women, 39% were young age girls, and 41% were oldest women.

Table 11: Do you know what the contributory factors of cervical Cancer are?

| Variable                          | Parameters         | Yes | No |
|-----------------------------------|--------------------|-----|----|
| Do you know what the contributory factors of cervical Cancer are? | |     |    |
| use of IUCD                       | 77                 | 77% | 23 | 23%|
| oral contraceptive pill           | 17                 | 17% | 83 | 83%|
| Having multiple sexual partners   | 99                 | 99% | 1  | 1% |
| Use of condom                     | 20                 | 20% | 80 | 80%|
Table 11 shows the question about the knowledge about the contributory factors of cervical Cancer. Respondent answered, use of IUCD, yes-77% and no-23%, OCP, yes-17% and no-83%. Having multiple sexual partner yes-99% and no-1%, use of condom yes-20% and no-80%.

**Fig 6: Contributory factor of cervical Cancer**

Table 12: Do you know which organisms are responsible for the disease?

| Variable                                           | Yes | No |
|----------------------------------------------------|-----|----|
| Do you know which organisms are responsible for the disease? | 100 | 0  |

Table 12 shows that question about the knowledge about which organisms are responsible for the disease. Respondents answered 100% yes. That means they are known which organisms are responsible for the disease.

Table 13: Do you know what factors are responsible for developing cervical Cancer?

| Variable                                           | Yes | No |
|----------------------------------------------------|-----|----|
| Do you know what factors are responsible for developing cervical Cancer? | 100 | 0  |

Table 13 shows that question about the knowledge of what factors are responsible for developing cervical cancer. All respondents are answering 100% yes.

Table 14: Do you know what are the risk factors of cervical Cancer?

| Variable                                           | Parameters | Yes | No |
|----------------------------------------------------|------------|-----|----|
| Do you know what the risk factors of cervical Cancer are? | Obesity   | 79% | 21% |
|                                                     | Exercise   | 11% | 89% |
|                                                     | Having multiple sex partner | 96% | 4% |
|                                                     | smoking    | 85% | 15% |

Table 14 shows the question about the knowledge of cervical cancer risk factors. Respondents answered obesity, 79%-yes and no-21%, Exercise, yes-11%, and no-89%, Having multiple sex partners, yes-96% and no-4%, Smoking, yes-85%, and no-15%.
Table 15: Have any concept about the complication of cervical Cancer?

| Variable                                      | Yes | No |
|-----------------------------------------------|-----|----|
| Have you any concept about the complication of cervical Cancer? | 100 | 0  |

Table 15 shows that questions about the knowledge about the complication of cervical Cancer. 100% of respondents answered yes. That means all respondents have a concept of the complication of cervical Cancer.

Table 16: Which type of complication may develop in cervical Cancer?

| Variable                                      | Parameters | Yes | No |
|-----------------------------------------------|------------|-----|----|
| Do you know Which type of complication may develop in cervical Cancer? | Infertility | 27 | 73 |
|                                               | Fertility  | 61 | 39 |
|                                               | Hemorrhage | 97 | 3  |
|                                               | UTI        | 75 | 25 |

Table 16 shows the knowledge about which type of complication may develop in cervical Cancer. 27% of respondents answered yes for infertility, 73% said no, 61% said yes for fertility, 39% said no, 97% said yes for hemorrhage, 3% said no, 75% said yes for U.T.I., and 25% no.

Table 17: Do you have any idea about untreated cervical Cancer?

| Variable                                      | Yes | No |
|-----------------------------------------------|-----|----|
| Do you have any idea about untreated cervical Cancer? | 100 | 0  |

Table 17 shows the knowledge about untreated cervical Cancer. All of the respondents said 100% yes.
Table 18: Have you any concept where treatment should be available?

| Variable                                      | Yes | No |
|-----------------------------------------------|-----|----|
| Have any concept of where treatment should be available? | 100 | 0  |

Table 18 shows the knowledge about where treatment should be available. 100% of respondents said yes.

Table 19: What are the preventive measures for cervical Cancer?

| Variable                                      | Parameters                                      | Yes | No |
|-----------------------------------------------|-------------------------------------------------|-----|----|
| Have any concept of where treatment should be available? | Have fewer sexual partner                       | N   | %  |
|                                               | Maintain personal hygiene                        | N   | %  |
|                                               | Screening test for HPV                           | N   | %  |
|                                               | Avoid early marriage                             | N   | %  |

Table 19 shows the knowledge about the preventive measure for cervical Cancer. 64% of respondents answered yes for having fewer sexual partners and no 36%, 98% of respondents said yes to maintaining personal hygiene and no 2%, 67% of respondents said yes to a screening test for HPV and no 33%, 11% respondents said yes and no 89%.

Fig 19: Knowledge about the preventive measure of cervical Cancer

Table 20: Have you received any educational program about cervical Cancer?

| Variable                                        | Yes | No |
|-------------------------------------------------|-----|----|
| Have you received any educational program about cervical Cancer? | N   | %  |

Table 20 shows that the knowledge about receiving any educational program about cervical Cancer. Only 5% of respondents said yes, and 95% of respondents said no.

Fig 20: Receive any educational program about cervical Cancer
DISCUSSION

This chapter contains a discussion of this study. The study established students' knowledge regarding the prevention of cervical Cancer. Cervical Cancer is a potentially preventable disease. It is important to be aware of the risk factors, screening techniques, and available diagnostic options, with special attention to managing the pre-invasive disease. Students' knowledge about the most vulnerable group of cervical Cancer (a). Married women, Yes-95% and No-5% (b) Unmarried women, Yes-32% and No-68% (c) Young age girl, Yes-39% and No-61% (d) Oldest women, Yes-41% and No-59%. Cervical Cancer is a worldwide public health problem [8]. It is the most common gynecological Cancer following breast cancer in developing countries [4].

Knowledge about the contributory factors of cervical Cancer (a) Use of IUCD, Yes-77% and No-23% (b) Oral contraceptive pill, Yes-17% and No-83% (c). Having multiple sexual partners, Yes-99% and No-1% (d) Use of Condom, Yes-80% and No-20%. Several risk factors for cervical Cancer have been identified, including sexual intercourse at an early age, early age of first pregnancy, too many births/too frequent birth, low socioeconomic status, poor maintenance of local hygiene, multiple male sexual partners, male sexual partners who themselves have had multiple sexual partners and smoking [14], knowledge about the risk factors of cervical Cancer (a) Obesity, Yes-79% and No-21% (b) Exercise, Yes-11% and No-89% (c) Having a sex partner, Yes-96% and No-4% (d) Smoking, Yes-85%, and No-15%. A lot is not yet known about the exact nature of the role of HPV in the development of Cancer of the cervix. Still, some facts are certain [15]. Knowledge about complications may develop of cervical Cancer. (a) Infertility, Yes-27% and No-73% (b) Fertility, Yes-61% and No-39% (c) Haemorrhage, Yes-97% and No-3% (d) Urinary tract infection, Yes-75% and No-25%. Any sort of unusual or unpleasant smelling vaginal discharge, Discomfort/pain during intercourse, Pain in the pelvic area, Painful or difficult urination [16]. Knowledge about the preventive measure for cervical cancer (a) Has a fewer sexual partner, Yes-64% and No-36% (b) Maintain personal hygiene, Yes-98% and No-2% (c) Screening test for HPV, Yes-67% and No-33% (d) Avoid early marriage, Yes-11%, and No-89%. Frequently occur in younger women (often under 40 year's age) [17]. Infection with HPV is highly prevalent, detected in approximately one-third of American female college students and 8 percent of men between the ages of 15 and 49 years [18].

There are several types of HPV, which vary in their ability to transform the cervical epithelium. Low-risk varieties, such as types 6 and 11, are commonly associated with either viral condyloma or mild dysplastic changes in cervical epithelium (CIN I), which do not usually progress to invasive disease [19].

CONCLUSION

Cervical Cancer is often preventable disease. Universal screening can potentially decrease the worldwide incidence of Cervical Cancer. Pap-smear screening, followed by colposcopy in appropriate patients, is an effective method for identifying intraepithelial lesions, which can often be treated on an outpatient basis. Patient Education and the provision of resources necessary to perform and interpret Pap smears are important steps toward reducing mortality from this type of Cancer.

RECOMMENDATION

The following recommendations can be made from the findings of this study:
1) All students were provided a special teaching Programme about cervical Cancer.
2) Motivation and awareness programs should be emphasized about cervical Cancer.
3) The advantage of nurses' knowledge regarding the management of cervical cancer should be made clear to the patients and should be emphasized through T.V., Radio, and News Paper.
4) Vaccination programs should also be emphasized.

CONFLICTS OF INTEREST

None.

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