

A study to assess the presence and awareness on risk factors of carcinoma cervix among women in the reproductive age group in a selected urban community, Bengaluru.

Dr. Priscilla AD¹, Tiwari S², Badgal A³, John P⁴, Thomas A⁵, Gopinath A⁶

Professor¹, College of Nursing, CHAF Bangalore.

²⁻⁶Ward Sisters, CHAF Bangalore.

Email ID: apriscillalde@gmail.com Mobil No: 8283841749

ABSTRACT

Introduction: Cervical cancer is the cancer that starts in the cervix - the mouth of the uterus. Although cancer of the cervix can develop in women of all ages, it usually develops in women aged (35-55yrs). Cervical cancer is a major cause of morbidity and mortality among women in resource poor settings. It is potentially preventable and effective screening programmes can lead to a significant reduction in the morbidity and mortality associated with this cancer. Early cervical cancer and pre-cancerous condition of the cervix have no symptoms. **Materials and Method:** Research approach was descriptive survey. Non-probability - Convenient sampling technique used. The study participants were 100 women in the reproductive age group in a selected urban community. A questionnaire to assess the presence and awareness on risk factors of cervical cancer was administered to the participants. **Results:** Among the 100 participants none of them were in the very severe or server risk category. Eighty-three (83%) percent were in mild risk category and 17% were in moderate risk category. Awareness level was categorized into three i.e, below average knowledge that had 38%, average knowledge- 61% and above average knowledge - 1%. **Discussion:** In the cumulative risk category out of 100 women 83 had mild risk and 17 had moderate risk, none of them were in severe or very severe risk category. In the awareness on risk factors, 61 had average knowledge, 38 had below average knowledge and only one had above average knowledge. This study findings corresponds with the study done in India and in North West Ethiopia. There is a need for sensitizing and educating the women on risk factors and screening methods of cancer cervix. Participants were sensitized and educated on the risk factors and how to work on the modifiable risk factors.

Key words: Cancer Cervix, risk factors, awareness of risk factors, prevalence of risk factors.

Background:

Every year about 5,00,000 new patients are diagnosed with cervical cancer and over 2,50,000 deaths. India, China, Brazil, Bangladesh and Nigeria represent more than half of the “global burden of cervical cancer deaths,” says the US based body supported by its study on global rankings. In the Hospital based cancer registries (HBCRs) the leading site for cervical cancer is Bangalore (40%) and Chennai (30.7%), the second leading site is Thiruvananthapuram (11.4%).^[1-3] In Uttar Pradesh a total of 17367 cases were reported in 2009 and it increased to 18692 in 2012. After UP the number of cases of cervical cancer in 2012 which have shown an increasing trend are Maharashtra (9892), Bihar (9824), West Bengal(8396), Andhra Pradesh (7907), Tamil Nadu (7077).^[4]

Based on National Cancer Registry Programmes (NCRP) reports in 2009 the number of cervical cancer cases were 1, 01,938 which has increased to 1, 07,690 in 2012. Cervical cancer has become challenging and life-threatening problem in industrial developed and developing countries. It is one of the common leading causes of death in the aging population of women. It is a devastating disease for women around the world. By 2030 cervical cancer is expected to kill over 4,74,000 women per year and over 95% of these deaths are expected to be in low- and middle-income countries.^[5, 6]

A study conducted by the New England Journal of Medicine reveals that about 1.3 lakh new cases of cervical cancer reported every year in India and about a quarter of the 5 lakh cases globally. In India, 12 population-based cancer registries (PPCR) showed cancer of

breast was the most common followed by cancer of the cervix. (ICMR-2004).^[7]

Women need special attention and planning, to maintain their reproductive health. India being an agricultural country has 73.7% of its population in rural areas. Statistics reveal that nearly 25% were below poverty line. A close observation reveals that most of the women have their marriage at an early age, this leads to early age at first coitus continuous assault by frequent pregnancies and poor sexual hygiene.^[8]

During the researcher’s clinical experience, it was noted that most cases of cervical cancer were reported at its advanced stage which is mainly due to lack of awareness regarding its risk factors and screening. This study will help in reaching out to the community in detecting pre-cancerous lesions of the cervix and creating awareness regarding screening tests.

Materials & Methods

Approach – Quantitative. Research design - non experimental descriptive in nature. Attributes under study : Presence of risk factors of carcinoma cervix and awareness of risk factors of carcinoma cervix. Setting of the study – Selected urban community - Vannarpet Bangalore. Sample and Sampling Techniques: Women in the reproductive age group (20-49 yrs) selected using non-probability convenient sampling technique. Sample size 100.

Inclusion criteria: Women in the reproductive age group i.e. between 20 – 49 yrs irrespective of the marital status, women who can understand Hindi or English as well as willing and available to participate in the study.

Development of tool: Semi-Structured questionnaire was developed based on the thorough review of research literature; validity was checked by giving it to the subject experts in the field of obstetrics and gynaecology. It consisted of three parts.

Part 1- socio demographic characters like age, marital status, age at marriage and first delivery, and number of children.

Part 2 – Twenty-Four (24) yes or no questions on risk factors of Ca cervix. The risk factors categories included were; Medical factors, Sexual factors, Obstetric factors, Infection and Nutritional factors. Four categories of risk factors included – (i). Very severe - 9 items with score 4, (ii). Severe - 7 items with score 3, (iii). Moderate - 9 items with score 2 and

(iv). Mild – 7 items with score 1. Method of scoring: Presence of Very severe risk factors of cervical cancer – 4, Severe risk factors of cervical cancer – 3, Moderate risk factors of cervical cancer – 2, Mild risk factors of cervical cancer – 1.

Part 3 - consists of 25 knowledge related statements regarding risk factors of Ca cervix with the options Yes/No/Don't Know. Scoring done based on the possession of positive/correct knowledge, negative/incorrect knowledge and knowledge deficit.

Pilot study – carried out in a similar set of participants, necessary corrections made in the tool. Main study data collection was done for 2 weeks. The subjects were assured of anonymity.

RESULTS:

Data was analyzed using descriptive statistics – frequency and percentage. Tables and figures were used to depict the findings.

Table 1: Distribution of subjects with respect to very severe risk factors N=100

S No	Statements related to very severe risk factors	Yes	No
1	Age at first delivery less than 20yrs	29	71
2	Age at marriage less than 20	61	39
3	Do you have the family history of any cancer?	13	87
4	Do you have the family history of cervical cancer?	3	97
5	Do you suffer from any genital tract infection at present?	10	90
6	Have you suffered from any genital tract infection in the past?	10	90
7	Do you have any history of Sexually Transmitted Disease?	2	98
8	Any history of Sexually Transmitted Disease in your spouse?	3	97
9	Do you have more than one sexual partner?	0	100

Inference: Among very severe risk factors 61% of the participants had early marriage and twenty nine (29%) of the participants delivered first child before 20 years of age. Family history of any type of cancer was present in 13% of the participants. Present and past history of genital tract infection was there in 10% in each category.

Table 2: Distribution of subjects with respect to severe risk factors

N=100

S No	Statements related to Severe risk factors	Yes	No
1	More than three children & Difference b/w children less than one	6	94
2	Education illiterates	51	49
3	Education primary level	9	91
4	Have you ever undergone pap smear test screening?	7	93
5	Have you ever taken HPV Vaccination?	0	100
6	More than three children	14	86

Inference: There were 51% of the participants in illiterate category. HPV vaccination was not taken by any of the participants. Fourteen (14%) percent of them had more than three children.

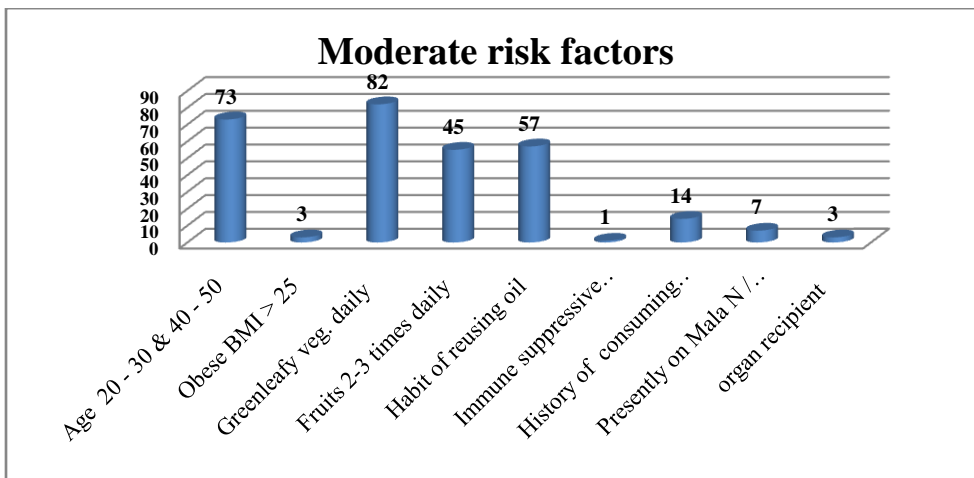


Figure 1: Distribution of subjects with respect to moderate risk factors

Inference: There were nine risk factors in this category. Participants reported of having poor dietary habits (i) less intake of green leafy vegetable (82%), (ii) less intake of fruits (45%), (iii) habit of reusing oil (57%). Total 21% of participants reported use of OCPs in the past (14%) and at present (7%).

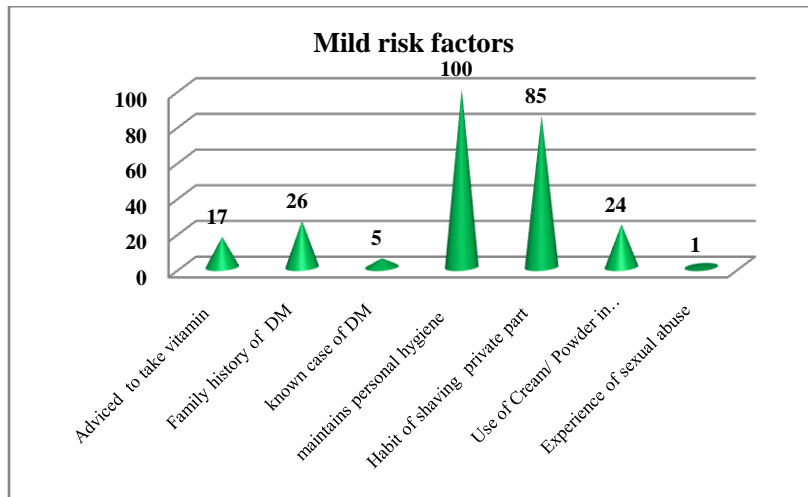


Figure 2: Distribution of subjects with respect to mild risk factors

Inference: Seven categories of risk were present in mild risk category. Thirty One (31%) participants had the history of Diabetes (26% family history & 5% known case of diabetes). Seventeen percentage of participants were advised to take vitamin supplements in the past. Use of Scented Cream/Talcum powder was present in 24% of the participants.

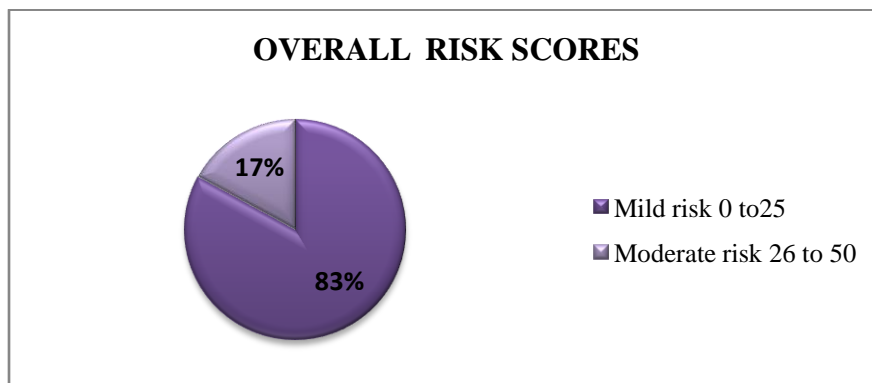


Figure 3: Distribution of subjects with respect to risk category

Inference: For the risk categorization each subject was scored on the presence of all four categories of risk factors. The cumulative risk was drawn by computing the risk scores of each subject arranged in ascending order of risk scores. Seventeen percentage (17%) of the participants were in moderate risk category, whereas 83% were in mild risk category.

Table 6: Awareness on risk factors of cervical cancer N=100

S No	Awareness level	Range of Knowledge Score	Number of Participants
1	Below average knowledge	0 to 10	38
2	Average knowledge	11 to 20	61
3	Above average knowledge	21 to 25	1

Inference: Among the entire participants maximum i.e., sixty-one (61%) participants were having average knowledge. Only one person has above average knowledge.

Discussion

The actual and potential risk factors of cervical cancer were divided into four categories in this study in order to score the participants. The risk factors were classified in to mild, moderate severe and very severe.

Overall Risk Categorization: For the risk categorization each subject was scored on the presence of all four categories of risk. The cumulative risk was drawn by computing the risk scores of each subject. Then the subjects were arranged in ascending order of risk scores and the categorization was done as given below;

- 00 – 25 Mild Risk Category - 83%
- 26 – 50 Moderate Risk Category - 17 %
- 51 – 80 Severe Risk Category - Nil

participants were sensitized on the risk factors and how to take precautionary measures to

Awareness on risk factors of Cancer Cervix

As there were 25 statements the samples with maximum possession of correct information scores 25, based on this fact three categories were made as shown below. The percentage against each category represents the sample percentage of this study finding.

- 0 to10 Below average knowledge 38%
- 11 to 20 Average knowledge 61%
- 21 to 25 Above average knowledge 01%

overcome the modifiable risk factors after the completion of data collection.

When comparing this study with the study conducted at Denmark a large cohort on nearly 50,000 patients with genital warts to find out the risk of carcinoma cervix in them. Women diagnosed with HPV infection have a 50% increased risk of cervical cancer.^[9]

It was estimated that 30% of cervical cancer cases will occur to who have never had a Pap smear test. In developing countries this percentage approaches 60%.^[10]

According to Swedish Family – Cancer Database family history of oropharyngeal squamous cell carcinoma and tonsillar squamous cell carcinoma in siblings increases risk of cervical cancer by SRI =3.17 and SRI=1.84.

Maximum samples (61%) were having average knowledge. When comparing this study with the study done at Kerala, India where four of the seven Panchayats were randomly chosen three fourth of the population (74.2%) knew that cervical cancer could be detected early by a screening test. Majority of respondents (89.2%) did not know any risk factor for cervical cancer.

CONCLUSION

Cancer Cervix is one of the common cancers of reproductive organs, if identified in the early stages has better curative treatment options. There are screening methods available which can be easily performed at the peripheral hospitals. Sensitizing the women about the availability of screening methods will help them to identify this disease in the early stages.

Apart from this, a simple measure like educating the women on common risk factors of cancer cervix will go a long way in prevention of this disease. Women being aware of the modifiable and non-modifiable risk factors and working on it will prevent them from developing this dangerous disease.

REFERENCES

1. Juneja A, Sehgal A, Sharma S, Pandey A. Cervical cancer screening in India: strategies revisited. *Indian J Med Sci.* 2007 Jan;61(1):34-47. PMID: 17197739. Sankaranarayanan R, Gaffikin L, Jacob M, Sellors J, Robles S. Critical assessment of cervical mop. *Int. J gynecolobstet* 2005; 89 (supp 1.2): 84-512
2. Kidanto HL, Kilewo CD, Moshiro C. Cancer of the cervix: knowledge and attitudes of female patients admitted at Muhimbili National Hospital, Dar es Salaam. *East Afr Med J.* 2002 Sep;79(9):467-75. doi: 10.4314/eamj.v79i9.9118. PMID: 2625687.
3. India tops cervical cancer deaths: US study. panache/india-records-1-in-cervical-cancer-cases-learn-more-about-causes-symptoms-and-treatments-available/articleshow/97545397.cms
4. cancer-cases-learn-more-about-causes-symptoms-and-treatments-available/articleshow/97545397.cms
5. Progress in cervical cancer prevention: The CCA report card South Africa august 2011.
6. Cervical cancer leading to many deaths PTI | Apr 7, 2009, 04.24 <http://timesofindia.indiatimes.com/life-style/health-fitness/Cervical-cancer-leading-to-manydeaths/articleshow/4370232>
7. Dutta DC. *Textbook of gynecology.* 5th ed. Kolkata, delhi,: New central book agency 2008
8. Cervical cancer. 2006: <http://www.ncci.org.an.15.07.2006>
9. GLOBOCAN 2002 database summary table by cancer achieved from the original.
10. Blomberg M, Friis S, Munk C, Bautz A, Kjaer SK. Genital warts and risk of cancer: a Danish study of nearly 50 000 patients with genital warts. *J Infect Dis.* 2012 May 15;205(10):1544-53. doi: 10.1093/infdis/jis228. Epub 2012 Mar 15. PMID: 22427679.
11. Berek, JS. *Berek & Novak's Gynecology.* 14th Edition, 2007. Lippincott Williams and Wilkins, Philadelphia.
12. Hussain SK, Sundquist J, Hemminki K. Familial clustering of cancer at human papillomavirus-associated sites according to the Swedish Family-Cancer Database. *Int J Cancer.* 2008 Apr 15;122(8):1873-8. doi: 10.1002/ijc.23265. PMID: 18074353.
13. Aswathy S, Quereshi MA, Kurian B, Leelamoni K. Cervical cancer screening: Current knowledge & practice among women in a rural population of Kerala, India. *Indian J Med Res.* 2012 Aug;136(2):205-10. PMID: 22960886; PMCID: PMC3461731.