



**KNOWLEDGE AND AWARENESS OF CERVICAL CANCER SCREENING AND PREVENTION IN SOUTH INDIAN POPULATION--A OBSERVATIONAL STUDY AT A TERTIARY CARE CENTRE AND TEACHING HOSPITAL**

**Dr. Priyanka Anil\*, Rachamalla Vihasitha, Mohammad Jebraail, Patluri Manusha Reddy, Ponnouju Akhil Susmith**

Department of Pharmacy Practice, Malla Reddy Pharmacy College, Maisammaguda, Dhulapally, Secunderabad, Telangana.

**\*Corresponding Author: Dr. Priyanka Anil**

Department of Pharmacy Practice, Malla Reddy Pharmacy College, Maisammaguda, Dhulapally, Secunderabad, Telangana.

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**ABSTRACT**

**Introduction:** Cervical cancer is one of the most prevalent cancers in women with the highest death rate in India worldwide. The incidence and death of cervical cancer can be decreased by women screening and human papilloma virus vaccines adolescent girls for pre-cancerous lesions. Knowledge of women and awareness of the prevention of cervical cancer are key factors in determining their use of screening services. **Materials and methods:** There were a total (N=100) number of participants enrolled in the study and are evaluated for knowledge awareness and risk factors of cervical cancer among hundred 70 participants are unaware about the cervical cancer. This is prospective observational study in which the patient's knowledge and awareness about cervical cancer is evaluated for those patients who willing to give informed consent and meet inclusion criteria. **Results and discussion:** Referring to findings, majority of the patients are in the age group of 21-30 and of 100 patients enrolled 55% are married and 45% unmarried and majority of them are found to be students. In this simple study conducted 70 patients are unaware about cervical cancer and of those 30 patients aware they have partial awareness about cervical cancer the incidence and mortality of cervical cancer can be diminished by screening women. since cervical cancer when detected at an early stage is curable it is necessary for women to undergo screening test. **Conclusion:** our study survey on patients enrolled shows poor knowledge and awareness about cervical cancer and are unaware about idea of prevention. Therefore, it is highly necessary to educate public concerning about cervical cancer its awareness and importance of screening.

**KEYWORDS:** Cervical cancer, screening, prevention, awareness.

**INTRODUCTION**

Cervical cancer refers to tumors that can develop at the lower end of the womb. These tumors are typically caused by abnormal cell changes at the vaginal entrance to the womb (the opening of the cervix). Screening can detect abnormal cell changes and remove them. Cervical cancer risk can be reduced by vaccinating against cancer-causing viruses (HPV vaccine). Cervical cancer is one of the leading causes of morbidity and mortality amongst the gynecological cancers worldwide.<sup>[1]</sup> In today's world, cervical cancer is primarily a disease found in low-income countries.<sup>[2]</sup> Of the nearly 500,000 new cases that occur annually, 83% are in the developing world, as are 85% of the 274,000 deaths associated with cervical cancer.<sup>[3]</sup> The South Asian region harbors one fourth of the burden of cervical cancer.<sup>[4]</sup> In India alone there are an estimated 132,000 new cases and 74,000 deaths each year.<sup>[4]</sup> Most women with cervical cancer in these countries present with advanced disease, resulting in low

cure rates.<sup>[4]</sup> Several factors contribute to high burden of disease and advanced stage at presentation including poor knowledge about the disease furthermore there is a lack of screening among general population.

The aim of the study is to create awareness in women about cervical cancer and importance of pap smear screening. The main objectives are to create awareness in women (>21 years) about cervical cancer Counseling patients for pap smear screening, to detect in pre-cancerous stage and avoid its progress to cancerous stage, to create awareness about barrier methods as they are not only used for contraception but also to avoid STD's, to educate patients to undergo pap smear follow-up once in years, to encourage women to take HPV vaccine, to find out how many women are aware of the risk factors and preventive methods of cervical cancer.

**Study design:** A hospital based Observational Study

Knowledge and awareness of cervical cancer screening and prevention in south Indian population – A observational study at a tertiary care centre and teaching hospital from department of Gynaecology and Obstetrics in Malla Reddy Women’s Hospital, Hyderabad.

**Study site:** Malla reddy Women’s Hospital

**Study period:** 6 months’

**Sample size:** 100

**STUDY CRITERIA**

**Inclusion criteria**

Gynaec patients of 21-60 years of age.  
Patients who have given their consent

**Exclusion Criteria**

Patients who have not given their consent.

Paediatrics

**RESULTS**

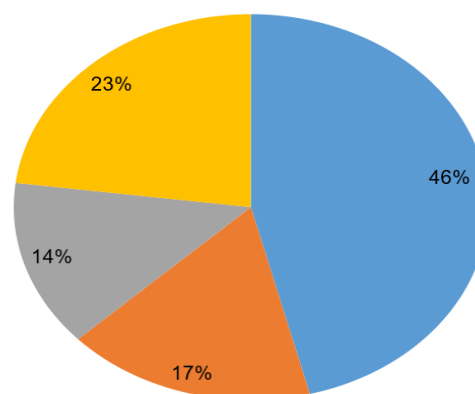
**Table 1: The Sociodemographic characteristics of patients.**

| Sociodemographic Characteristics. | No of Patients | Percentage% |
|-----------------------------------|----------------|-------------|
| <b>AGE</b>                        |                |             |
| 21-30                             | 46             | 46%         |
| 31-40                             | 17             | 17%         |
| 41-50                             | 14             | 14%         |
| 51-60                             | 23             | 23%         |
| <b>MARITAL STATUS</b>             |                |             |
| Married                           | 55             | 55%         |
| Unmarried                         | 45             | 45%         |
| <b>PROFESSION</b>                 |                |             |
| Student                           | 42             | 42%         |
| Housewife                         | 33             | 33%         |
| Working                           | 25             | 25%         |

**Interpretation**

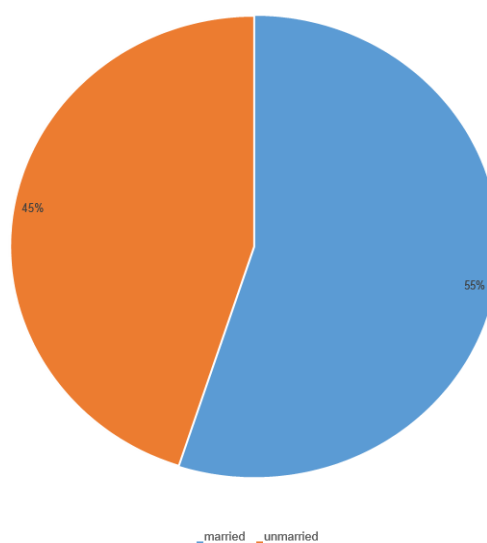
- TABLE 1 interprets sociodemographic characteristics of patients based on age 21-30, 31-40,41-50,51-60 (46%,17%,14%,23%).
- In case of marital status of women 55% found to be married and remaining 45% are unmarried
- In case of profession majority of patients are found to be students which is 42% followed by housewife and working women which is 33% and 25% respectively.

**AGE**  
■ 21-30 ■ 31-40 ■ 41-50 ■ 51-60



**Fig: 2 Distribution of patients based on age.**

**MARITAL STATUS**



**Fig 3: distribution of patients based on marital status.**

**Fig 4: distribution of patients based on profession.**

**Table 2: Knowledge about cervical cancer and its screening, HPV Infection and vaccination.**

| Knowledge                              | No of Patients | Percentage |
|--|----------------|------------|
| <b>Knowledge about cervical cancer</b> |                |            |
| Aware                                  | 30             | 30%        |
| Unaware                                | 70             | 70%        |
| <b>Knowledge about pap test</b>        |                |            |
| Aware                                  | 20             | 20%        |
| Unaware                                | 80             | 80%        |
| <b>Knowledge about hpv</b>             |                |            |
| Aware                                  | 22             | 22%        |
| Unaware                                | 78             | 78%        |
| <b>Knowledge about hpv vaccine</b>     |                |            |
| Aware                                  | 17             | 17%        |
| Unaware                                | 83             | 83%        |

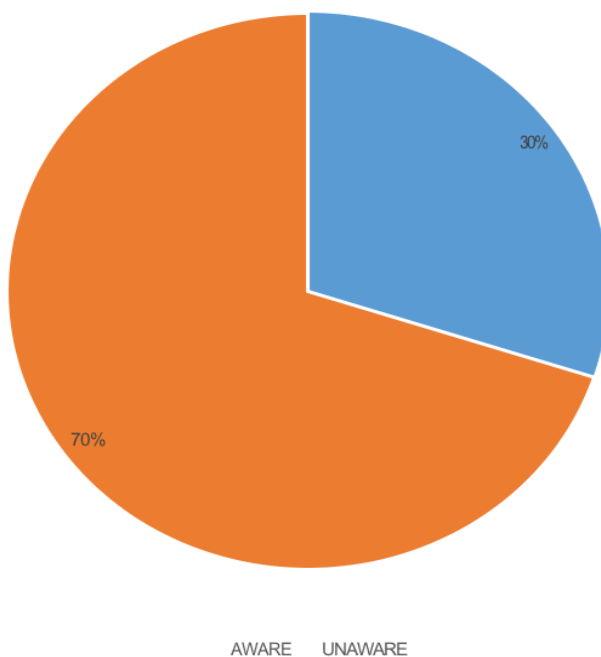
**Interpretation**

- TABLE 2 represents knowledge of patients about cervical cancer and its screening, HPV infection and vaccination in which it shows that cervical cancer is

70% of patients are unaware 30% are aware.

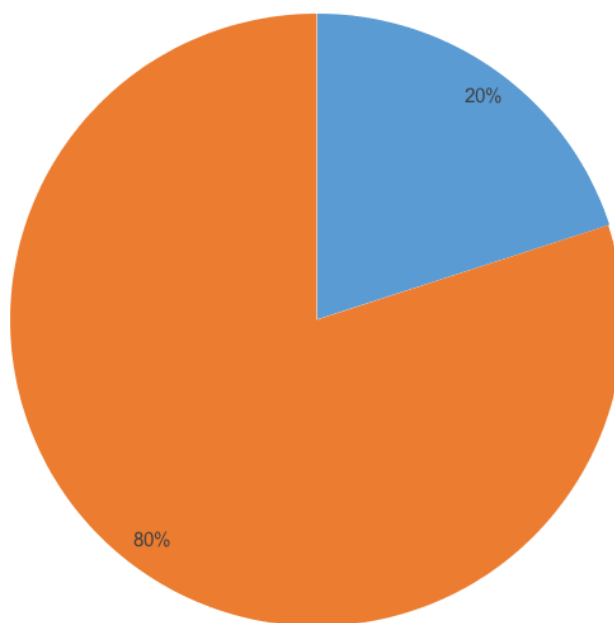
- In case of knowledge about pap test 80% are unaware, 20% are aware, HPV 78% unaware, 22% aware and HPV vaccine 83% unaware, 17% aware.

KNOWLEDGE ABOUT CERVICAL CANCER

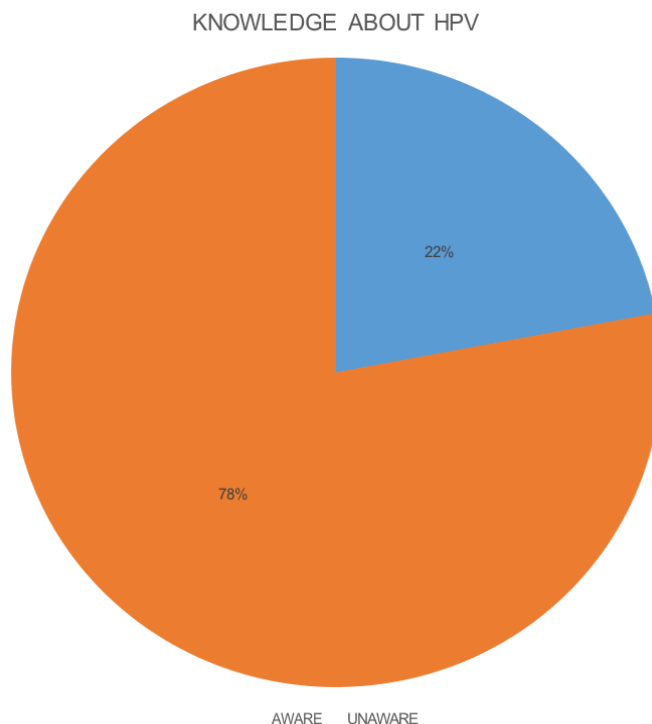


**Fig 5: knowledge of patients about cervical cancer.**

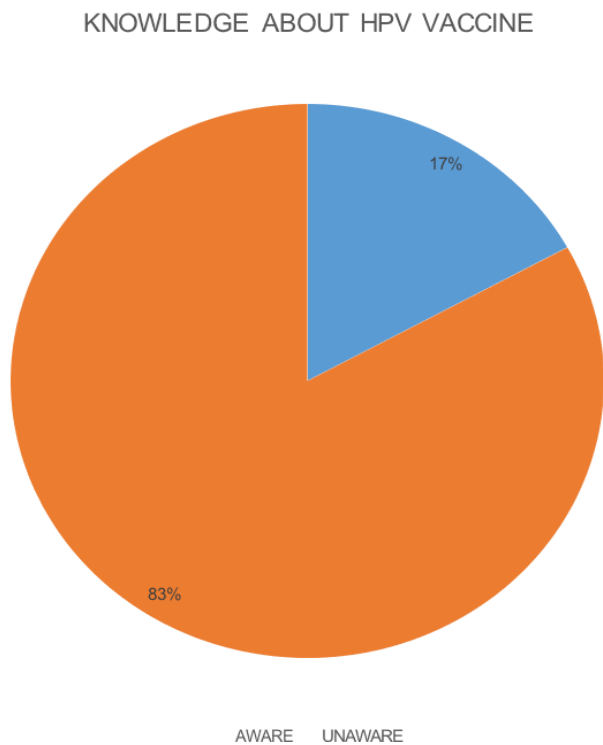
KNOWLEDGE ABOUT PAP TEST



**Fig 6: knowledge of patients about pap test.**



**Fig 7: knowledge of patient about HPV.**



**Fig 8: knowledge of patients about HPV vaccine.**

**Table 3: Source of Information About Cervical Cancer.**

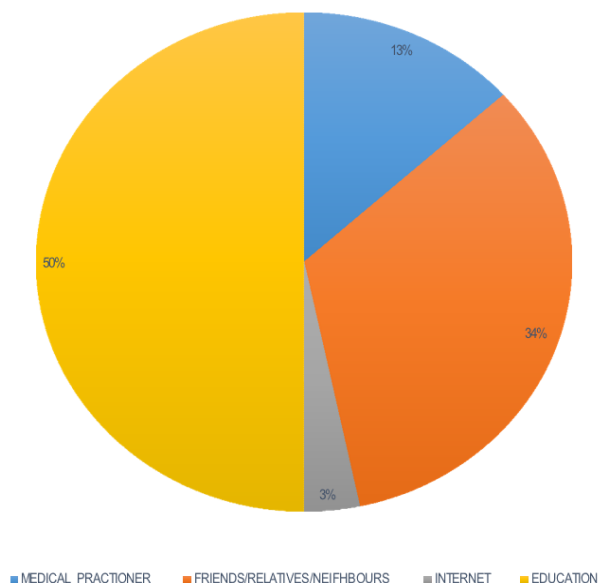
| Source of Information About Cervical Cancer | Patients | Percentage % |
|---|----------|--------------|
| Medical Practitioner                        | 4        | 13.33%       |
| Friends/Relatives/ Neighbors.               | 10       | 33.33%       |
| Internet                                    | 1        | 3.33%        |
| Education                                   | 15       | 50%          |

**Interpretation**

TABLE 3 represents source of information about patients who were aware of cervical cancer which

shows that majority of the patients are aware through education which is 50% followed by 33.33% friends and medical practitioner 13.3%.

**SOURCE OF INFORMATION ABOUT**



**Fig 9: source of information about cervical cancer.**

**Table 4: Source of Information About Hpv Vaccine.**

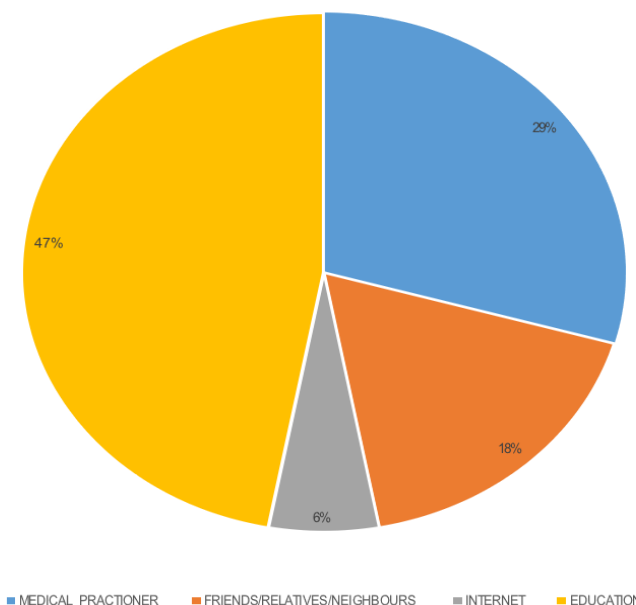
| Source of Information About Hpv Vaccine | Patients | Percentage% |
|---|----------|-------------|
| Medical Practitioner                    | 5        | 29.41%      |
| Friends/Relatives/Neighbours            | 3        | 17.64%      |
| Internet                                | 1        | 5.88%       |
| Education                               | 8        | 47.05%      |

**Interpretation**

TABLE 4 represents source of information about HPV vaccine which shows that majority of them are aware

through education which is 45% followed by medical practitioner 30% friends 15% and internet 10%.

**SOURCE OF INFORMATION ABOUT HPV VACCINE**



**Fig 10: Source of Information About Hpv Vaccine.**

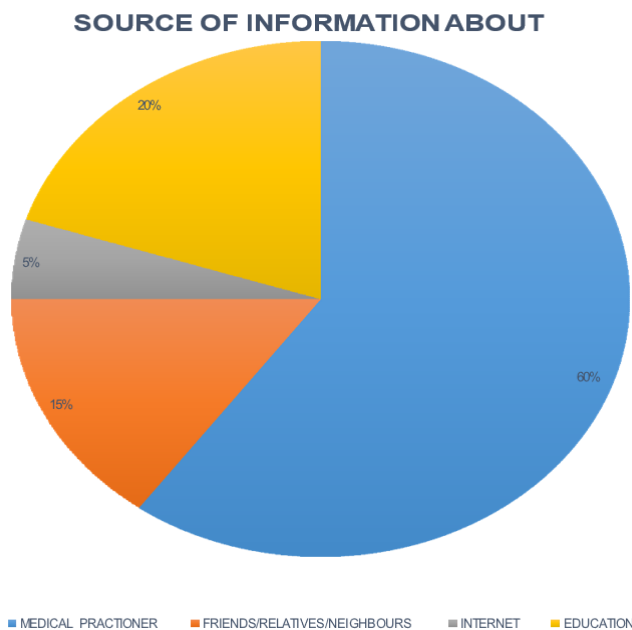
**Table 5: Source of Information About Pap Test.**

| Source of information about pap test | Patients | Percentage% |
|--------------------------------------|----------|-------------|
| Medical Practitioner                 | 12       | 60%         |
| Friends/Relatives/Neighbors          | 3        | 15%         |
| Internet                             | 1        | 5%          |
| Education                            | 4        | 20%         |

**Interpretation**

TABLE 5 represents source of information about pap test which shows that majority of patients are aware through

medical practitioner 60% education 20%, friends 15%, internet 5%.



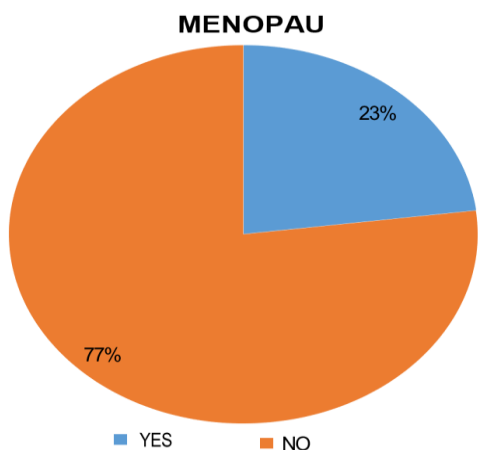
**Fig 11: source of information about pap test.**

**Table 6: Distribution of Patients Based on Menopause.**

| Menopause | No of Patients | Percentage% |
|-----------|----------------|-------------|
| YES       | 23             | 23%         |
| NO        | 77             | 77%         |

**Interpretation**

TABLE 6 represents distribution of patients based on menopause that shows 23% are menopause and 77% are not menopause.



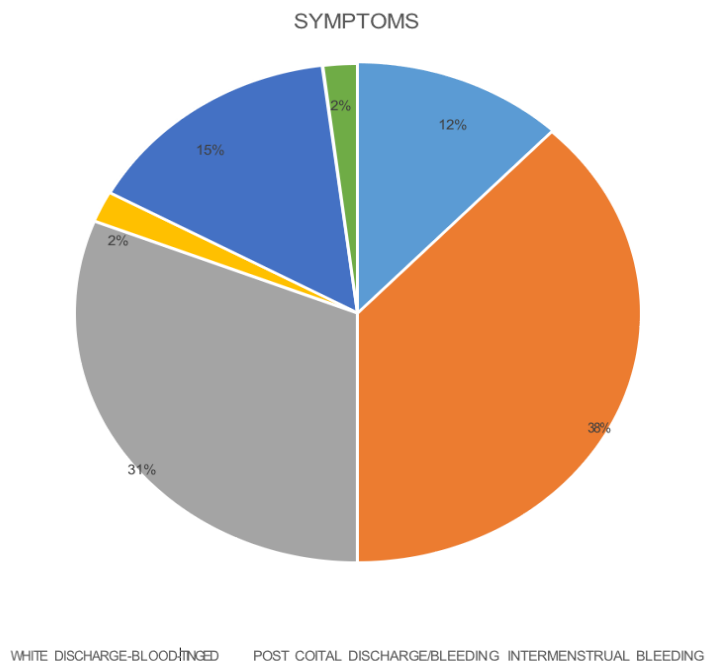
**Fig. 12: Distribution of Patients Based on Menopause.**

**Table 7: Knowledge About Symptoms.**

| Symptoms                      | No of Patients | Percentage % |
|-------------------------------|----------------|--------------|
| White Discharge- Blood Tinged | 12             | 12%          |
| Post Coital Discharge/Bleedi  | 38             | 38%          |
| Ng                            |                |              |
| Intermenstrual Bleeding       | 31             | 31%          |
| Bleeding After Passing Stool  | 2              | 2%           |
| Post Menopausal Bleeding      | 15             | 15%          |
| Post Menopausal Discharge     | 2              | 2%           |

**Interpretation**

TABLE 7 represents knowledge of patients about symptoms whose results shows that post coital discharge bleeding is 38 % intermenstrual bleeding which is 31%, post- menopausal bleeding is 15% white discharge 12% post-menopausal discharge 2%, bleeding after passing stools is 2%.



**Fig 13: knowledge about symptoms of cervical cancer.**

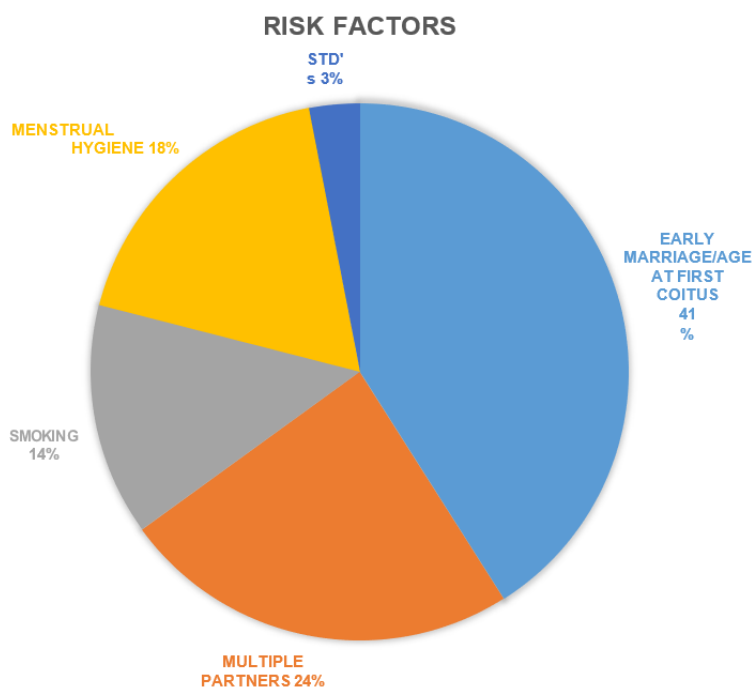
**Table 8: Knowledge About Risk Factors.**

| Risk factors                       | No of Patients | Percentage% |
|------------------------------------|----------------|-------------|
| Early Marriage/Age at First Coitus | 41             | 41%         |
| Multiple Partners                  | 24             | 24%         |
| Smoking                            | 14             | 14%         |
| Menstrual Hygiene                  | 18             | 18%         |
| STD's                              | 3              | 3%          |

**Interpretation**

TABLE 8 represents knowledge about risk factors among them major risk factor was found to be early

marriage/early intercourse which is 41% multiple partners 24%, menstrual hygiene 18%, smoking 14%, STD's 3%.



**Fig. 14: Knowledge About Risk Factors of Cervical Cancer.**

## DISCUSSION

The present study is on the assessment of knowledge and awareness of cervical cancer and its screening in female patients in a tertiary care hospital. The majority of respondents in our survey were unable to recognize cervical cancer as a major public health problem. A similar number of study population identified cervical cancer as an important killer amongst gynecological cancers in women. This was an unexpected finding that the south Indian people are unaware of the fact that cervical cancer is the second leading cause of cancer-related mortality among women in developed countries and is still the leading cause of death due to gynecological cancers in the developing countries.<sup>[5]</sup> This was on the contrary to the results of a study done in Uganda and Thailand to assess knowledge, attitudes and practices on cervical cancer screening among the registered, which showed that majority of the respondents were aware of the burden imposed by cervical cancer on health system and had moderate level of knowledge regarding cervical cancer and HPV.<sup>[6]</sup> Studies done on knowledge about cervical cancer, HPV infection and its prevention in general population show inadequate information of the participants on the concerned topic.<sup>[7], [8], [9], [10], [11]</sup> On the basis of these findings, it can be expected that considering the knowledge about this disease in health professionals, the knowledge in general population of our country will be even less.

Majority of the subjects were within in the age group of 21-30 (46%) The study was also observed on the basis of sociodemographic characteristics of patients and it was observed that in case of marital status of women 55% found to be married and remaining 45% are unmarried.

In case of profession majority of patients are found to be students which is 42% followed by housewife and working women which is 33% and 25% respectively.

In study observed with respect to knowledge of patients about cervical cancer and its screening, HPV infection and vaccination shows that 70% of patients are unaware and 30% are aware.

In case of knowledge about pap test 80% are unaware and 20% are aware and majority of the subjects are un aware of HPV vaccine which is 83% and 17% are aware of its Data based on source of information about cervical cancer to patients interprets that majority of the patients are aware through education which is 50% followed by 33.33% through friend's relatives and 13.3% through medical practitioner.

Data based on source of information about HPV vaccine which shows that majority of them are ware through education which is 45% followed by medical practitioner 30%, friends 15% and internet 10%

A study based on distribution of patients based on

patient's information about pap test interprets that majority are aware through medical practitioner 60% followed by education 20% friends 15%, internet 5%.

A study based on distribution of patients based on menopause show that 23% are menopause and majority 77% are not menopause.

The study observed on the basis of knowledge of patients about symptoms whose results shows that post coital discharge bleeding is 38%, inter menstrual bleeding 31%, post-menopausal bleeding 15%, white discharge 12%, menopausal discharge 2%, bleeding after passing stools is 2%.

The above findings suggest that the knowledge and awareness of women about cervical cancer is very less hence large-scale health education to public is required with reference to cervical cancer and its prevention.

## CONCLUSION

Our findings highlight women's lack of knowledge about cervical cancer The participants' overall knowledge of cervical cancer and its prevention was inadequate. The majority of participants (70%) are unaware of cervical cancer. The majority of participants (78%) are unaware that HPV is a causative agent of cervical cancer. This is extremely concerning because preventing HPV infection is the most important way to prevent cervical cancer. Furthermore, 20% are aware of cervical cancer screening tests. Few of them are aware that an apparently healthy woman should have the test at least three times in her life. Those who had heard about cervical cancer, on the other hand, had a more optimistic outlook. Women's failure to attend pap smear screening and HPV vaccination may have been influenced by health care providers lack of information and communication. To overcome such resistance, education, information communication, and barrier-specific counselling are required. A cervical cancer prevention education program should be replicated for all female groups, including unmarried working women or female adolescents.

## REFERENCES

1. Sankaranarayanan R, Ferlay J. Worldwide burden of gynaecological cancer: the size of the problem. *Best Pract Res Clin Obstet Gynaecol*, 2006; 20: 207–225.
2. Sankaranarayanan R. Overview of cervical cancer in the developing world. FIGO 6th Annual Report on the Results of Treatment in Gynecological Cancer. *Int J Gynaecol Obstet*, 2006; 95: 1S205–210.
3. Ferlay JBF, Pisani P, Parkin D. Cancer incidence, mortality and prevalence worldwide. Lyon, France, 2001; 7.
4. Laikangbam P, Sengupta S, Bhattacharya P, Duttugupta C, Dhabali Singh T, et al. A comparative profile of the prevalence and age distribution of human papillomavirus type 16/18 infections among

- three states of India with focus on northeast India. *Int J Gynecol Cancer*, 2007; 17: 107–117.
5. Das BC, Hussain S, Nasare V, Bharadwaj M. Prospects and prejudices of human papillomavirus vaccines in India. *Vaccine*, 2008; 26: 2669–2679.
  6. Nganwai P, Truadpon P, Inpa C, Sangpetngam B, Mekjarasnapa M, et al. Knowledge, Attitudes and Practices vis-a-vis Cervical Cancer Among Registered Nurses at the Faculty of Medicine, Khon Kaen University, Thailand. *Asian Pac J Cancer Prev.*, 2008; 9: 15–18.
  7. Tebeu PM, Major AL, Rapiti E, Petignat P, Bouchardy C, et al. The attitude and knowledge of cervical cancer by Cameroonian women; a clinical survey conducted in Maroua, the capital of Far North Province of Cameroon. *Int J Gynecol Cancer*, 2007.
  8. Lee PW, Kwan TT, Tam KF, Chan KK, Young PM, et al. Beliefs about cervical cancer and human papillomavirus (HPV) and acceptability of HPV vaccination among Chinese women in Hong Kong. *Prev Med.*, 2007; 45: 130–134.
  9. Mosavel M, El-Shaarawi N. “I have never heard that one”: young girls' knowledge and perception of cervical cancer. *J Health Commun*, 2007; 12: 707–719.
  10. Vrscaj MU, Vakselj A, Strzinar V, Bebar S, Baskovic M, et al. Knowledge about and attitudes to pap smears, cervical cancer and human papillomavirus among women in Slovenia. *Eur J Gynaecol Oncol*, 2008; 29: 148–153.
  11. Vanslyke JG, Baum J, Plaza V, Otero M, Wheeler C, et al. HPV and cervical cancer testing and prevention: knowledge, beliefs, and attitudes among Hispanic women. *Qual Health Res.*, 2008; 18: 584–596.