



**ORIGINAL RESEARCH PAPER**

**Obstetrics & Gynaecology**

**KNOWLEDGE, ATTITUDE AND PRACTICE STUDY ON AWARENESS OF GENITAL CANCER IN WOMEN- A COMMUNITY BASED CROSS SECTIONAL STUDY IN HASSAN.**

**KEY WORDS:** Genital cancer, Knowledge, Attitude, Practice, Awareness, HPV vaccination

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**ABSTRACT**

**Introduction:** Cervical cancer is the second most cancer among women worldwide. In India cervical cancer is the third largest cause of cancer mortality among women. Late detection, and advanced genital cancer are common cause for mortality, which may be prevented by early detection with awareness of genital cancer among women. This study analyses the knowledge, attitude and Practice for detection of genital cancer, its risk factors, screening methods, Preventive measures and treatment modalities among women in community by a cross sectional, community based survey at Hassan district. 300 subjects were enrolled and subjected for interview using pretested interviewer administered KAP questionnaire. **Results:** sociodemographic characteristics were analysed with knowledge, attitude and practices towards awareness of genital cancer. 30.7 % were in age group 25 -35 years , 27.7% in >45 years. 50.7% had educational status of higher secondary and 65.7% to homemakers ,and 78% in lower socioeconomic status and , 234(78%) were aware of genital cancer. In knowledge part, 36(12%) had good knowledge, 115(38%) moderate knowledge, 149(50%) had poor knowledge. News paper and camps by social and professional organizations were source of knowledge. 75(25%) had positive attitude, 168(56%) had neutral attitude, 57(19%) had negative attitude. 11(4.%) had good practice, 289(95.3%) had poor practice. 20% had heard about pap smear test, .2.8 % , about HPV virus and 5.8 % heard about HPV vaccine Socio economic status was strongly associated with KAP levels. **Conclusion:** participant women had poor knowledge about genital cancer , screening tests and HPV vaccination with very low rate of practice in the community. Community based Awareness programs on genital cancer with implementation of screening and adolescent HPV vaccination are to be integrated in the National NCD prevention programs to reduce advanced cancer related morbidity and mortality among women

**INTRODUCTION:**

Gynaecological cancers in female reproductive organs like cervix ,uterus ,ovary fallopian tube ,vagina ,vulva and breast are raising, with cervical cancer being 26.74 per 1,00,000 population., the second most cancer among women worldwide ,and the third largest cause of cancer mortality in India <sup>1</sup> Various etiology are identified for cervical cancer such as early sexual activity, multiple partners, poor hygiene ,immunocompromised status and Human papilloma virus (HPV) an identified causative agent for cervical carcinoma . HPV is non enveloped double stranded DNA virus with more than 100 types with 30 anogenital types, out of which HPV strains- 16,18,31,33,35,39,45,51,52,56,58,59 and 66 are oncogenic, causing high grade invasive cervical cancer. Hpv serotypes 16(63%) and 18 (16)% account for majority of invasive cervical cancers. Hpv infection is sexually transmitted, it is prevented by HPV vaccination, that is primary prevention , early detection and treatment of precancerous lesions by cytological screening (pap smear) are secondary methods.

Early detection of precancerous lesions by screening methods like visual inspection with acetic acid (VIA) and visual inspection with lugol's iodine (VILI) , pap smear and HPV testing are available. . Screening at early age and treatment of preinvasive high grade lesion may prevent women from developing advanced cancer associated morbidity and mortality. HPV vaccines in adolescence prevent 85% of women from cervical cancer It is observed that women seeking healthcare professionals at a later stage of genital cancer because of lack of awareness and information about genital cancer may have resulted in poor health seeking practices. Late detection due to barriers in early screening and HPV immunization need to be analysed as an important intervention in protection of women from

invasive genital cancer in India. This community based, cross sectional study is undertaken to analyse the knowledge, attitude and practice towards genital cancer causes, screening methods and treatment modalities and thereby, to advocate effective health seeking behavior among women.

**METHODOLOGY:**

This was a cross sectional, community based survey conducted at Hassan ,and data collected for a period of 6 months duration from February to July 2023, using a pretested questionnaire, to study the knowledge, attitude and Practice towards genital cancer, its risk factors, screening methods, Preventive measures and treatment modalities among women attending consultation at Outpatient departments and the attendees in the waiting area in Government hospital campus at Hassan, Karnataka, India. 300 participants aged 21 yrs and above were enrolled and subjected for interview using pretested interviewer administered KAP questionnaire. Data of awareness, knowledge and practice were analyzed using MS Excel sheet. After obtaining approval from the Institutional ethics committee, the willing participants were enrolled for the study after taking verbal consent. Interviewer administered questionnaire was utilized to collect data from the participants. The preset questionnaire included sociodemographic profile and Knowledge, Awareness and Practices towards genital cancer ,site of cancer, risk factors, sources of information, screening methods ,treatment modalities, preventive measures and practices existing.

In knowledge related component (total score-15) , scoring is given for each correct answer as 1 and wrong answer as 0. Participant's overall knowledge score was categorized using Bloom's cut off point, scored as good for a score between 10-15, moderate for a score between 6-9, poor for a score <6.

Total attitude score was categorised using the Bloom's cut off point (total score=8), positive attitude for a score 6-8, neutral for a score 3-5, negative for a score of <2. Practice was assessed by response toward screening for cancer and HPV vaccination. participants who were screened and /or vaccinated was taken as good practice and if none were noted as NO practice.

Data was exported to Microsoft excel sheet version 16.2 and analysed using software version 20.0. Descriptive statistics like mean, standard deviation, frequency and proportion were used to represent the sociodemographic characteristics and KAP of the study population. Association of sociodemographic variables with KAP levels was determined using Chi- square test. And P <0.05 is considered as statistically significant.

**OBSERVATION:**

1a.sociodemographic characteristics were analysed with knowledge, attitude and practices towards awareness of genital cancer.30.7 % belongs to age group 25 -35 years about and 27.7% belongs to >45 years of age.as seen in table 1a. 50.7% had educational status of higher secondary and 65.7% belongs to homemaker ,and 78% belongs to lower socioeconomic status(table 1d) and 86.7% were married.Data are shown in table 1a,b,c,d.

		number	percentage
Age	18-24	74	24.7
	25-34	92	30.7
	35-44	57	19
	>45	77	25.7
Education	Illiterate	51	17
	Primary	29	9.7
	High School	152	50.7
	Graduate	58	19.3
	Post graduate	10	3.3
Occupation	House wife	197	65.7
	Unskilled	46	15.3
	Student	31	10.3
	Semi skilled	10	3.3
	Professional	16	5.3
Socio Economic Status	Lower class	234	78
	Middle Class	56	18.7
	Upper class	10	3.3
Marital status	Married	260	86.7
	single	40	13.3
	Widow	0	
Parity	0	53	17.7
	1	57	19
	2	140	46.7
	>3	50	16.7

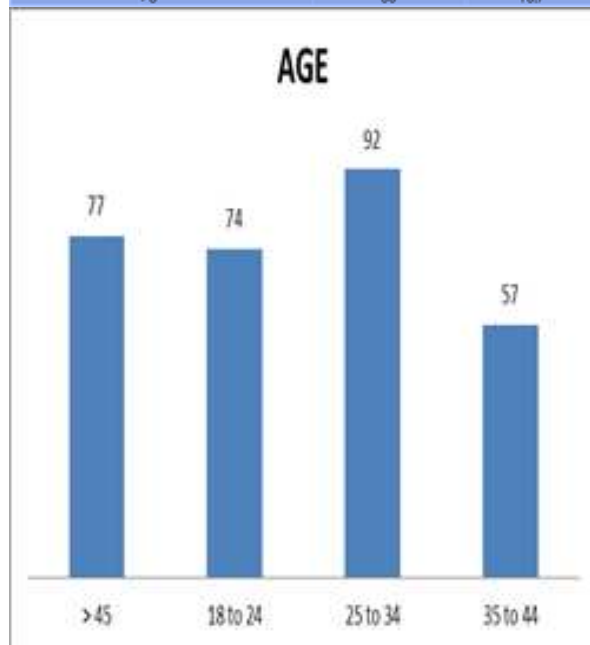


Table 1a

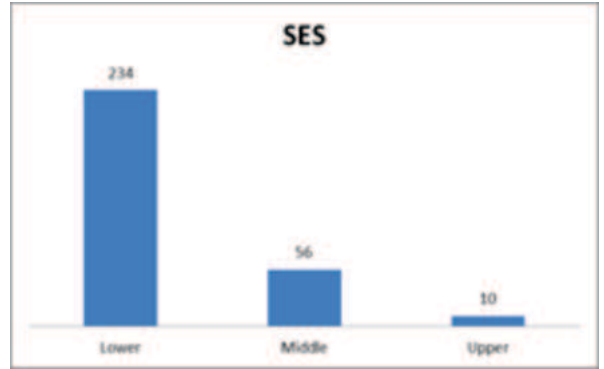


Table 1b

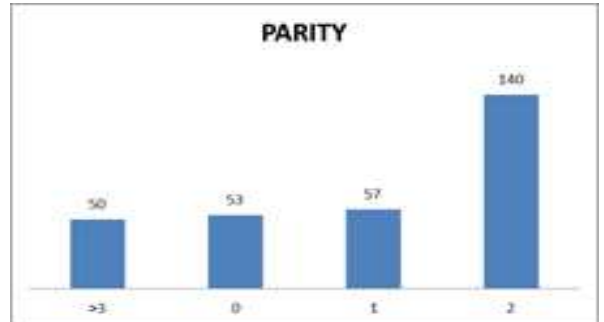


Table 1d

2a.knowledge:: Among 300 participants,234 (78%) wereAware of genital cancer and 66(22%) were not aware about genital cancer. About the sites of cancer, majority of participants were aware about breast cancer (80%),while only 32 % were about cervical cancer. 56% were aware of irregular vaginal bleeding as symptoms of cancer. On assessing the source of knowledge, 36% got information from healthcare workers and camps and 14% from television, 12% from friends. 20% had heard about pap smear test and only 3.8 % had knowledge on appropriate screening methods-pap smear test .9.8 %, about HPV virus and 5.8 % heard about HPV vaccine .(Table 2a,b,c,d,e,f,g)

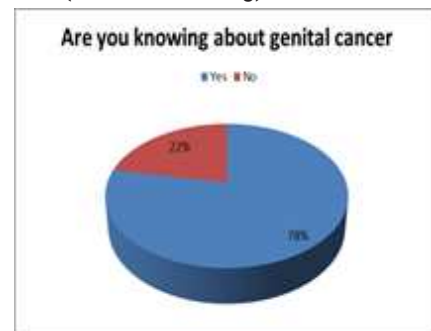


Table.2a,

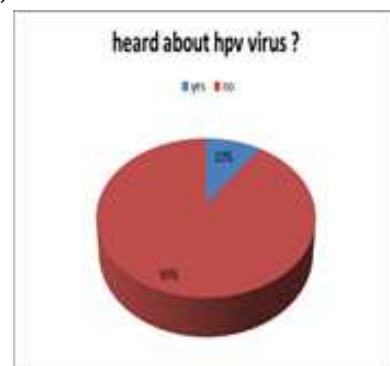


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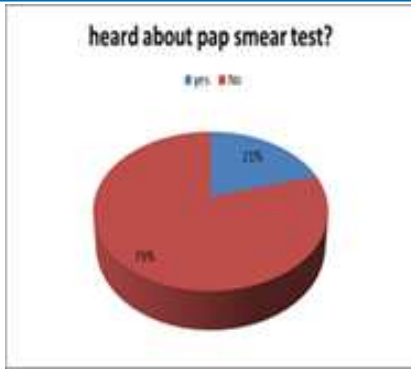


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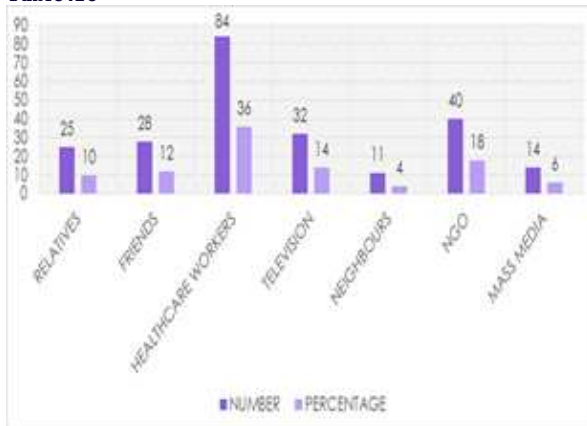


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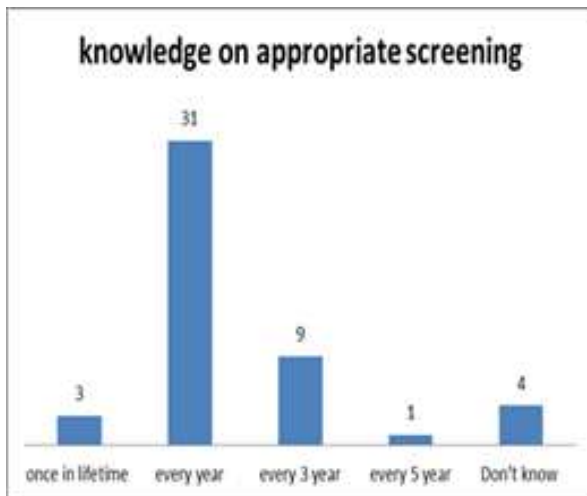


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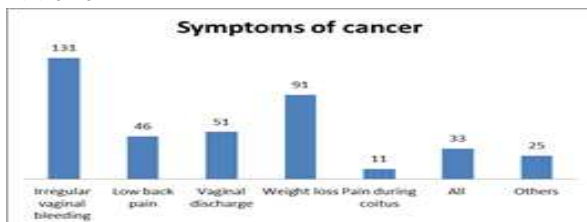


Table2f

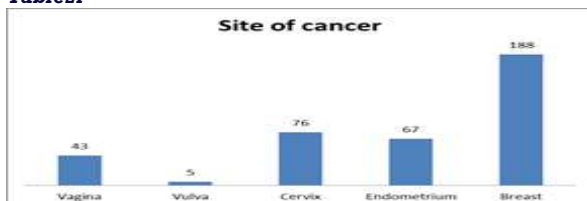


Table2g

3a. Source of knowledge on genital cancer(table3a),risk factors (Table3b): awareness of symptoms and prevention(Table3c)

Knowledge	NUMBER	PERCENTAGE
Are you knowing about genital cancer		
Yes	234	78
No	66	22
Site of cancer		
Vagina	43	18.3
Vulva	5	2.1
Cervix	76	32.5
Endometrium	67	28.6
Breast	188	80.3
Knowledge about cause of cancer		
Old age	117	50
Family History	155	66.2
HPV	18	7.7
More No of children	28	12
Others	35	15
Symptoms of cancer		
Irregular vaginal bleeding	131	56
Low back pain	46	20
Vaginal discharge	51	21.8
Weight loss	91	38.9
Pain during coitus	11	4.7
All	33	14.1
Others	25	10.7

Table3c

	NUMBER	PERCENTAGE
Risk factor for genital cancer		
Multiple sexual partners	115	49.1
More No of children	44	18.8
Early sexual intercourse	23	9.8
Cigarette smoking	121	51.7
oral contraceptive pills	34	14.5
All	39	16.7
Do you think cancer is preventable?		
Yes	210	89.7
No	24	10.3
Do you think cancer is curable?		
Yes	196	83.8
No	38	16.2

Table3b

		NUMBER	PERCENTAGE
source of knowledge	relatives	25	10
	friends	28	12
	healthcare workers	84	36
	television	32	14
	neighbours	11	4
	NGO	40	18
	mass media	14	6
Method of treatment	Surgery	138	59
	drugs	50	21.4
	radiotherapy	31	13.2
	all	87	37.2
heard about pap smear test?	yes	48	20.5
	No	186	79.5
knowledge on appropriate screening	once in lifetime	3	1.28
	every year	31	13.2
	every 3 year	9	3.8
	every 5 year	1	0.4
	Don't know	4	1.7

Table3a

		NUMBER	PERCENTAGE
who should be screened ?	women>25years	26	11.1
	high risk women	48	20.5
	family history of genital cancer	69	29.5
	elderly women	101	43.2
	all	71	30.3
heard about hpv virus ?	yes	23	9.8
	no	211	90.2
heard about hpv vaccine and dosage schedule	yes	16	6.8
	no	218	93.2

Table3d

4. Attitude and practice: 69% subjects were willing for screening for breast and genital cancer and 30 % were not willing for screening. 51 % were willing to get hpv vaccine and 75 % of subjects told they need more information about cancer. On assessing the practice, only 4.7 % had done a pap smear test before and only 2 women had taken HPV vaccine as shown in Table4a,b.

Attitude		NUMBER	PERCENTAGE
Do you think all women are at risk of developing cancer ?	yes	123	41
	no	177	59
do you believe that you have the chance of getting cancer?	yes	102	34
	no	198	66
have any relatives suffered from genital cancer?	yes	43	14.3
	no	257	85.7
do you think it is possible to detect cervical cancer with early screening test before symptoms appear ?	yes	207	69
	no	93	31
do you think early detection of cancer is good for treatment outcome ?	yes	256	85.3
	no	44	14.7
willingness for screening for breast and genital cancer	yes	208	69.3
	no	92	30.7
willingness for hpv vaccine	yes	155	51.7
	no	145	48.3
need more information about cancer	yes	226	75.3
	no	74	24.7

Table4a

Practice		NUMBER	PERCENTAGE
whether you had regular gynaecological examination	yes	39	13
	no	261	87
have you got screened previously for genital cancer?	yes	14	4.7
	no	286	95.3
reason for not screened	im healthy	197	65.5
	it may be painful	29	9
	i feel shy	28	9
	im not informed about screening place	50	14.5
have you had a pap smear done before ?	yes	14	4.7
	no	286	95.3
whether you have taken hpv vaccine?	yes	2	0.7
	no	298	99.3

Table4b

5. KAP analysis.:

Overall, knowledge part, 36(12%) had good knowledge, 115(38%) moderate knowledge, 149(50%) had poor knowledge.

Attitude - 75(25%) had positive attitude, 168(56%) had neutral attitude, 57(19%) had negative attitude. practice - 11(4.%) had good practice, 289(95.3%) had poor practice as shown in table 5a,b. Sociodemographic characteristics were strongly associated with KAP levels with p value < 0.05.

6. Association of sociodemographic profile with kap: is as shown in table. 6a, b, c

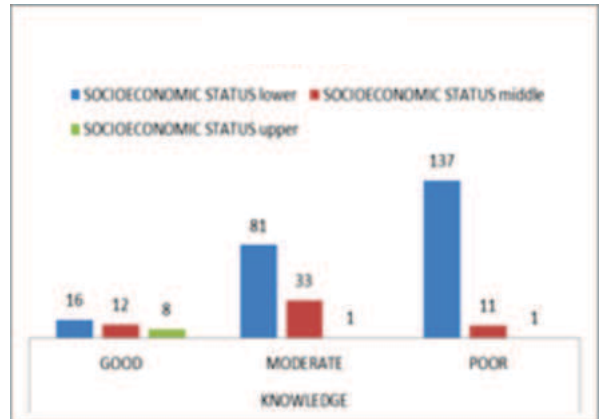


Table 6a

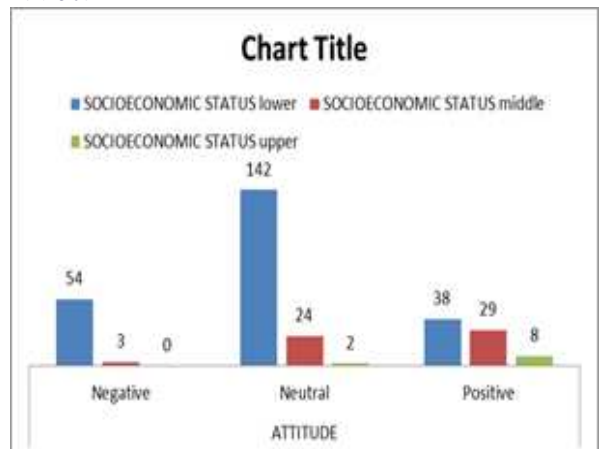


Table 6b

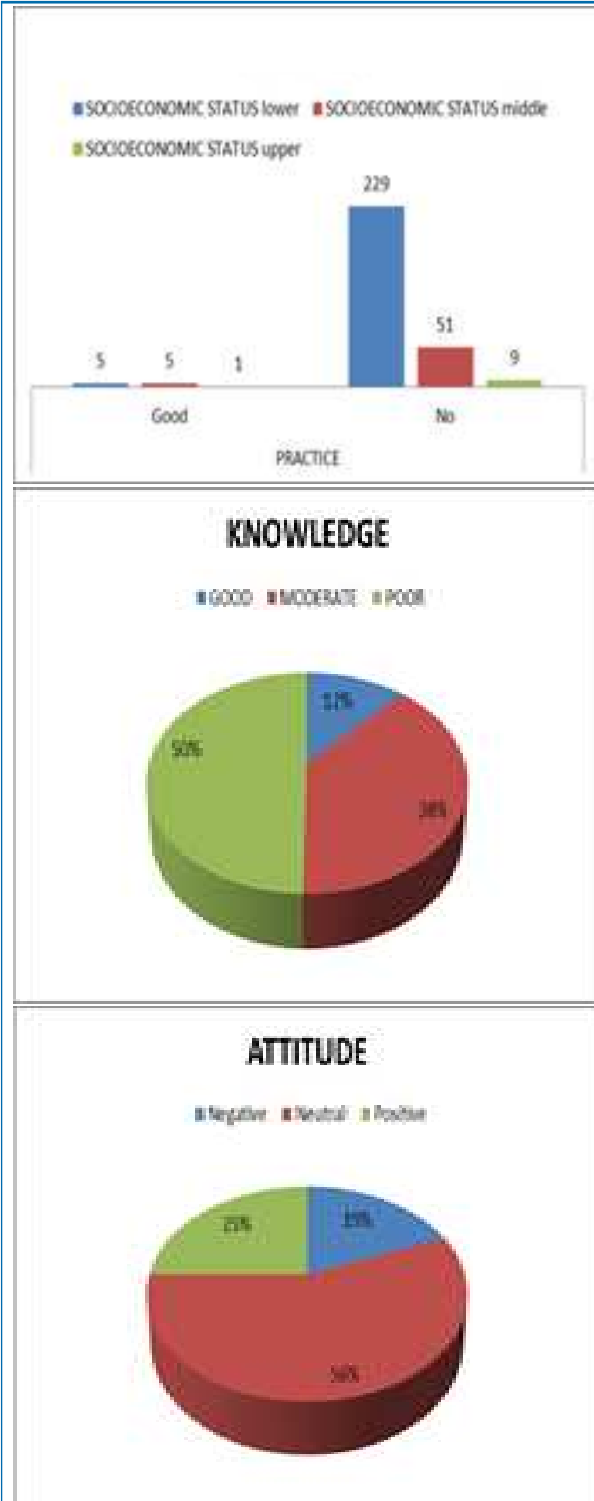


Table 6c

**DISCUSSION:**

Genital cancer among women amounts to 4<sup>th</sup> most common cause of death among women worldwide, and second most cause of death among women with genital cancer in India. with the risk is 35% among reproductive age group. Early detection of pre invasive stage disease of cervix and breast may reduce cancer related deaths. Poor screening among Indian women due to limited awareness and availability on genital cancer among women in India has lead to late health seeking behavior. Lack of awareness, poor screening practices, non affordable or poor available resources and low level of practices among community is an

unmet need for mass screening and early detection of cancer among women may be overcome with increased community awareness programmes. The present study surveyed 300 women in community to analyse factors for Gap between knowledge and practice of genital cancer screening.

A review by Taneja et al<sup>6</sup> included total of 7688 women in hospital and community based studies observed that majority women were married, and the illiteracy rate ranged from 5% to 66%. And concluded that in India women still lack in appropriate knowledge and attitude toward Cervical Cancer and screening techniques were due to low literacy rate. The articles reviewed showed that low age of marriage, education, poverty were factors independently associated with adequacy of knowledge, attitude, and practice of Cervical Cancer screening. Taneja et al and Dhodapkar et al reported, early marriage in 32.68%, 30% percent women told that abnormal vaginal bleeding, Inter menstrual bleeding and foul smelling discharge as symptoms of Cervical Cancer. practice of screening was 20.31%. although Positive attitude toward screening was seen in 43.64%, Whereas a study at London showed 76% of awareness, 57% women had knowledge on HPV Vaccine and 35.68% women had already taken HPV Vaccine. Singh et al reported that 79% females were aware of symptoms of Cervical Cancer and 66% as foul-smelling vaginal discharge, similar to observations by Shah et al observed awareness of symptoms as 94.2% abnormal vaginal discharge, 86.9% as menstrual abnormality and 66.6% as pelvic pain. Radha Ramaih et al reported 64% awareness of cancer uterus as seen by Kuwait and Cameroon studies, with awareness 34.5%, 76.2% women were willing for screening free of cost, but practiced in 9.5% only, as observed in present study, indicating availability of free provision may improve the practice of genital cancer screening and vaccination.

A hospital based survey done by Narayan et al observed a prevalence of screening for Cervical Cancer was 5.4%; and awareness among 64%, In contrast to a cross-sectional study at a primary health center in Tamil Nadu observed awareness of Cervical Cancer (75.42%) but PAP screening was practiced in 31% although 69.96% were willing for screening. Bansal et al<sup>7</sup> also found similar results in a study of women of reproductive age who presented to the outpatient department in Bhopal among 400 survey participants, 65.5% had heard of Cervical Cancer, but 9.5% had undergone a screening test, but 76.25% had positive attitude for screening, indicating a gap in awareness and practice. In Kerala, 809 participants reported 75% awareness that Cervical Cancer but only 6.9% had practiced it. A Gap in awareness and practice was observed in above studies and similarly in present study that shows the need for increased awareness on cancer screening.

In present study of survey among 300 women, were aged 25-35 years and 50% had high school education, 17% were illiterate. 65% were housewife and 10% were students. 78% of women belonged to low socioeconomic status, 18% were middle class and 3.3% were in upper class, 86% were married and most of them were multiparous.

In knowledge part, 78% were aware of genital cancer and 80% were aware of breast cancer. 56% were aware of irregular vaginal bleeding as symptoms of cancer in present study. similarly, a study conducted by Bathija et al<sup>4</sup> at urban slums, Hubli, Karnataka showed that 15% were aware about cervical cancer, 72% were answered irregular vaginal bleeding as symptoms of cancer and 7% got information about cancer from relatives, 3% from healthcare workers that was seen in our study, 36% got information from healthcare workers and 10% got information from relatives. Boratne et al<sup>8</sup> in a similar study at Puducherry showed awareness in 37.6% on cervical cancer, 3.1% on risk factors and 2% as multiple sexual partners.

Narayana et al<sup>2</sup> conducted a similar study at Anantapur district, Andhrapradesh reported 37.7 % had good knowledge ,36.7 % had moderate knowledge and 25.5 % had poor knowledge about cervical cancer. Reichheld et al<sup>5</sup> conducted a KAP study at Vellore, Tamilnadu and reported 84.6 % had poor knowledge ,10.3 % had moderate knowledge and 5.1 % had good knowledge about cervical cancer. Varadheswari et al conducted a study at Perambalur, Tamilnadu and results showed 36.48 % had good knowledge, 56.75 % and 6.75% had satisfactory and poor knowledge. In present study, 12 % had good knowledge, 38% had moderate knowledge and 50 % had poor knowledge which were comparable to vellore study, while vardeshwari<sup>5</sup> reported better knowledge.

In attitude part, 83.78% had positive attitude and 12.16 % had negative attitude towards screening for cervical cancer. Narayana et al study results shows 62.5 % had positive attitude and 37.5 % had negative attitude compared to present study with lower positive attitude. Tadesse et al<sup>7</sup> conducted KAP study at Ethiopia observed 60.6 % had heard about cervical cancer, 71.7 % had positive attitude towards cervical cancer screening and 2.2 % were screened for cervical cancer. Similarly, Ghosh et al<sup>7</sup> study results reported 99.9 % had positive attitude and 0.1 % had negative attitude and no practice in that community. In present study 25 % had positive attitude, 56 % had neutral attitude and 19 % had negative attitude towards screening of genital cancer and HPV vaccination, attitude was low compared to other studies which indicate increased awareness and availability of screening may improve attitude and practice of cancer screening among women.

In present study , practice towards screening for genital cancer was 4 % and 95.3 % had poor practice in comparison with studies by Boratne et al with 99.2 % , Narayana et al showed 5.4 % had regular practice and 7.9 % had irregular practice and 86.6 % had no practice. Varadheswari et al study shows 1.35 % had good practice, 1.35 % had irregular practice and 97.29 % had no practice ,that implies that poor practices of screening resulted in late seeking of treatment for cervical cancer.

The present study found the association between sociodemographic characteristic with knowledge, attitude and practice towards genital cancer. lower socioeconomic status women had poor knowledge , neutral attitude and no practice towards genital cancer compared to middle class and upper socioeconomic status people. Sociodemographic characteristics were strongly associated with KAP levels with p value <0.05. The above study revealed that low awareness and screening seeking behaviour by women may have resulted in low attitude and practices in screening for genital cancer.

**Recommendation:**

This study concluded that women surveyed had poor knowledge about genital cancer causes, screening tests and HPV vaccination. Even though some of them had good knowledge and positive attitude, there was low rate of practice in the community. Hence there is an urgent need for High impact community based Awareness programs on genital cancer with strong implementation of mass Screening and adolescent HPV vaccination, that may be integrated in the National NCD prevention programs. Prevention and detection of pre invasive genital cancer among women, may thereby reduce Advanced genital cancer related morbidity and mortality.

**Conflict Of Interest:** There is no conflict of interest.

**Acknowledgement:**

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