

Awareness of cervical cancer screening test (PAP smear) among women attending maternal and gynecology health services and women employees of a tertiary care centre.

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ABSTRACT

Objective: To explore perceptions of women in the Chittoor district regarding the PAP smear as a cervical cancer screening test.

Materials and methods: A cross sectional study was conducted among 2141 in OPD patients of obstetrics and gynecology department, healthcare workers working in institute of AIMSR and Government hospital, Chittoor district, Andhra Pradesh in study duration of six months. All categorical data were presented as numbers and percentages.

Results: Among the total study population (2141), 59.8% had not known about cervical cancer screening test. 22.5% of the study population is familiar about pap smear through health care workers. 68.6% of the population did not know about the importance of pap smears. Among the total population astonishingly 94.2% are interested in knowing about PAP smear which is a cervical cancer screening test.

Conclusions: Our research indicates that the populace of the Chittoor district has an unacceptable level of knowledge and attitude about PAP smears. The importance of screening tests in detecting cervical cancer early, when it is still curable, must thus be properly communicated.

Keywords: PAP smear, cervical cancer, awareness, screening, prevention

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Word count: 2713 **Tables:** 02 **Figures:** 00 **References:** 14

Received: 06 March, 2024, Manuscript No. OAR-24-128986

Editor assigned: 09 March, 2024, Pre-QC No. OAR-24-128986 (PQ)

Reviewed: 13 March, 2024, QC No. OAR-24-128986 (Q)

Revised: 20 March, 2024, Manuscript No. OAR-24-128986 (R)

Published: 31 March, 2024, Invoice No. J-128986

INTRODUCTION

Globally, cancer cervix is the fourth most common cancer among females [1]. The annual number of new cancer cervix cases are projected at 700,000 and the annual deaths at 400,000 by the year 2030. The incidence of cancer cervix is highest in low- and middle-income countries as compared to high income countries. As per WHO, nine out of ten deaths due to cancer cervix occurs in low to middle income countries [2].

Though cancer cervix cases are on a decline in developed countries, in developing countries like India, they continue to pose a huge burden. 1 Amongst Indian women, cancer cervix is a dreaded disease, especially in the rural areas of the country [3].

The most important cause of cervical cancer is infection with high-risk human Papilloma virus 16/18 (hr-HPV), which is sexually transmitted [4]. They can also cause other types of cancers such as anogenital cancers. The low oncogenic types of HPV like HPV 6/11 are implicated in genital warts [5].

The progression of this cancer from pre invasive to invasive cancer occurs relatively slowly and therefore screening tests have a lot of relevance [3]. For the same reason, it is one of the few cancers that are preventable. Early diagnosis of precancerous lesions is necessary to prevent the progression into cancer [6]. Efficient screening programmes are in place in developed countries and the percentage of women being screened ranges from 68% to 84% as per various reports [1].

The WHO global strategy to eliminate cancer cervix introduced in 2020, recommends a global target of 70 % cancer cervix screening coverage. In addition to this, vaccination coverage for girls by the age of fifteen is recommended at 90% and 90% of women identified with cancer cervix should receive treatment [7].

However, the number of women undergoing screening in India is very low and most of the screening occurs after the onset of symptoms. As a result, most cases of cancer cervix are diagnosed at advanced stages leading to high morbidity and mortality [8].

PAP smear (PAP) screening test not only detects cancerous and precancerous lesions of cervix, it also detects infections, inflammations and reactive cellular changes associated with

inflammation. Further, when an abnormal PAP smear is detected, Visual Inspection with Acetic Acid (VIA), Visual Inspection with Lugol's iodine and colposcopy guided biopsy can be done to increase the chances of detection of premalignant and malignant lesions of the cervix. HPV/DNA testing is also an important screening method for cervical cancer prevention [5].

Many studies done in India have reported low awareness regarding PAP smear screening test and its importance [8,9].

The present study was undertaken to study the knowledge, attitude and practice regarding PAP smear among the study population (2141). After the data collection procedure, the study participants were educated about the basics of PAP smear screening test procedure, its importance and implications.

Study Details

Aim of the study:

- This study was conducted to know the knowledge of cervical cancer, among women attending OPDs of hospitals attached to the Apollo Institute of Medical Sciences and Research (AIMSR), Chittoor.
- To know about the awareness of cervical cancer screening among these women.
- To explore the sources of information and the role of healthcare providers who come in contact with women in hospitals.

Study design: Cross sectional study

Study setting: Department of pathology, AIMSR, DHH, Chittoor.

Study population:

- Out-patient department patients of obstetrics and gynecology department
- Health care workers (paramedics & others) working in institute of AIMSR and Government hospital, Chittoor district, Andhra Pradesh.
- ASHA workers

Duration of study: 01/12/2022 to 01/06/2023 (7 months)

Sample size: The sample size calculated on basis of awareness among women of Uttar Pradesh [9]. Using

formula
$$\frac{4 \times P \times Q}{L^2}$$

P = Prevalence of awareness of PAP smear (24%)

Q = 100 - P

L = absolute error = 8%

Sample size = 1979

For more authenticity minimum sample of 2141 was taken (adding non response rate of 8%)

Informed consent:

Written informed consent about the study was taken following which questionnaire was given and it consists of twelve questions including the information of personal details, presence of any risk factors for cervical cancer and awareness of PAP smear and their knowledge towards PAP smear.

Inclusion criteria:

- All women age between 21 years - 65 years attending to government hospital (GH), obstetrics and gynecology department, Chittoor, Andhra Pradesh.
- Health care workers (paramedics & others) working in institute of AIMSR and Government hospital, Chittoor district, Andhra Pradesh.
- ASHA workers.

Exclusion criteria:

Women with post total hysterectomy and who were already detected with premalignant lesion of cervix.

Statistical analysis:

All categorical data were presented as numbers and percentages by using IBM-SPSS version 20.0 and tables were constructed using Microsoft Excel 2019.

MATERIALS AND METHODS

This cross-sectional study was conducted on the knowledge, awareness, and attitude of Apollo Institute of Medical Sciences and District Headquarter Hospital (DHH) in Chittoor district towards PAP smear. It was carried out from 1/12/2022 to 1/6/2023 after approval from the institutional ethical committee with letter number: 11/IEC/AIMSR/2022. Participants were selected by random sampling between the ages of 21 years to 65 years; from OPD of Obstetrics and Gynecology department, Health care workers (paramedics & others) working in institute of AIMSR and Government hospital, Chittoor district, Andhra Pradesh. Patients and Accredited Social Health Activist (ASHA) workers working in primary health care centers, Chittoor district, Andhra Pradesh. A total of 2141 females were enrolled in the study.

A structured questionnaire was designed after thorough literature searches. The questionnaire was thoroughly reviewed by two proficient doctors and pilot tested on 10 students for applicability, coherence, and clarity before being administered to the study. The questionnaire was applied by interpersonal interviews conducted in department of pathology, Apollo Institute of Medical Sciences and Research.

The questionnaire framed in both local language (Telugu) and English which comprises mainly in two parts. The first part included questions on demographic data, for example, age, marital status, level of education, and profession. The second part consisted of knowledge about PAP smear. Participants were questioned regarding their concerns for not choosing to get PAP smear done.

Data were analyzed descriptively using IBM Statistical Package for the Social Sciences and tables were constructed using Microsoft Excel. Results for the qualitative variable were presented as

frequencies and percentages.

RESULTS

Among the total study population (2141), most common characteristics are shown in Table 1.

age was less than 30 years (72.4%). Of the examined women, 56.7% (1214/2141) reported unmarried, 57.8% (1238/2141) had a degree level of education (not necessarily completing university) and 51.3% (1184/2141) were students. Demographic

Tab. 1. Demographic characteristics of study population.

Characteristics	Frequency	Percentage
Age		
<30	1550	72.4
31-40	316	14.8
41-50	200	9.3
>50	75	3.5
Marital status		
Divorced	2	0.1
Married	891	41.6
Separated	4	0.2
Unmarried	1214	56.7
Widowed	30	1.4
Level of education		
Degree	1238	57.8
Illiterate	213	9.9
post graduate	30	1.4
Primary	223	10.4
professional	90	4.2
Secondary	347	16.2
Profession		
ASHA worker	131	6.1
Employee	274	12.8
Housewife	473	22.1
Labour	79	3.7
Student	1184	55.3

Awareness, knowledge and attitude about cervical cancer. Of the 2141 participating population, 59.8% (1280/2141) had not known about cervical cancer screening test. Among known women 40.2% (861/2141). Participating population are familiar about PAP smear most commonly through health care workers 22.5% (482/2141) followed by hospital visit 12.8% (273/2141). Only 31.4% (672/2141) are acclimatized about PAP smear where the predominant population of 68.6% (1469/2141) have no clue

about its importance. Maximum population 95.1% (2036/2141) had not undergone PAP smear. Only 17.2% (369/2141) was advised by physicians about the PAP smear. 16.9% (362/2141) population advised their family, friends and relatives to do PAP smear. As little as 9.9% (212/2141) asked their physician to screen for carcinoma cervix (PAP smear) on them. Among the total population 94.2% (2014/2141) are interested in knowing about PAP Table 2.

Tab. 2. Participants awareness and knowledge and attitude of cervical cancer, and information source about cervical cancer, PAP smear testing

Did u hear about PAP smear?		
Health care	482	22.5
hospital visit	273	12.8
through media	54	2.5
Posters	10	0.5
friends	42	2
No	1280	59.8
Did u know the importance of PAP smear?		
No	1469	68.6
yes	672	31.4
Have you underwent PAP smear before?		
No	2036	95.1
Yes	105	4.9
Does your physician advice you to do PAP smear?		
always	18	0.8
never	1772	82.8
sometimes	351	16.4
Have you ever advised your family/ relatives/ friends to do PAP smear?		
always	50	2.3
never	1779	83.1
sometimes	312	14.6
Do you ask your physician to undergo PAP smear?		
always	14	0.7
Never	1929	90.1
sometimes	198	9.2
Are you interested in knowing more information about PAP smear		
No	124	5.8
Yes	2017	94.2

DISCUSSION

The cervical cancer ranks as the fourth most frequently diagnosed cancer and the fourth leading cause of cancer death in women worldwide [10]. In India which has the highest number of cervical cancer patients worldwide, is home to one in every five women who have the disease. 11 The DNA virus named Human Papilloma virus shows vital role in the evolution of genital warts and Cervical Intraepithelial Neoplasia (CIN) [5]. The disproportionately higher incidence in underdeveloped nations is brought about by insufficient diagnosis, screening, and treatment, through numer-

ous tactics that focus on women for screening and treatment, it is feasible to avoid fatalities due to cervical cancer [11]. Therefore, the early detection of precancerous lesions, whose treatment often makes cervical cancer one of the few human malignancies that may be prevented, is the foundation for cervical cancer prevention [12]. Significant mortality and morbidity reductions were facilitated by the use of the PAP test.

Our study conducted in district of Chittoor, south India with the total study population (2141), most common age was less than 30 years (72.4%). Of the examined women, 56.7% (1214/2141) were unmarried, 57.8% (1238/2141) had a degree level of education

(not necessarily completing university) and 51.3% (1184/2141) were students. Similarly, Assoumou et al. reported that 59.3% were less than 30 years, 50.4% were unmarried and employed were 51.6% [6]. In our study, 40.2% (861/2141), had not known about cervical cancer screening test, which was similar to Al Khudairi et al., where (46.2%) did not hear about PAP smear. Among known women participating population are familiar about PAP smear most commonly through health care workers 22.5% (482/2141) followed by hospital visit 12.8% (273/2141) [6,13]. Only 31.4% were aware of the importance of pap smear while majority of the population (68.6%) were not aware. Maximum population 95.1% (2036/2141) had not undergone PAP smear. Only 17.2% (369/2141) was advised by physicians about the PAP smear. Al Khudairi et al. showed that only 15.4% heard about it during their hospital visits. The importance of PAP smear was not known to 61.5%. A total of 75.2% did not do a single PAP smear previously. A sum of 75.5% reported that their physicians never advised them to do PAP smear [13]. In present study, 16.9% (362/2141) population advised their family, friends and relatives to do PAP smear. As little as 9.9% (212/2141) asked their physician to screen for carcinoma cervix (PAP smear) on them. Among the total population astonishingly 94.2% (2014/2141) are interested in knowing about PAP smear which is a cervical cancer screening test. In the study by Al Khudairi et al. a total of 58.6% never advised their families/relatives/friends to do PAP smear whereas 84.6% never requested their physician to do PAP smear. At the end of the survey, almost all women 95.3% expressed an interest in knowing more information about the PAP smear screening test [13]. An-

other interesting finding in our study is that among ASHA workers, the awareness of PAP smears screening was 62.59% (82/131). Study showed that low prevalence of PAP smear screening test was due to poor awareness about cervical cancer, the availability of screening services, their advantages, and an overall sense of wellbeing were significant deterrents to screening uptake. Other prominent deterrents could be humiliation or anxiety connected to the screening process, fear of being evaluated for lack of modesty, and stigma. Also, the lack of knowledge about the PAP smear procedure and a lack of recommendations from healthcare professionals.

Awareness on PAP screening may be enhanced with inspiration, information, and talks on PAP screenings and cervical cancer. Despite the fact that health care professionals are the primary source of information, frequent mobile health clinics and media like television, radio, and newspapers can help. It has been shown that cytological screening can cut the risk of cervical cancer by 80% [14].

CONCLUSION

PAP smear screening test plays a key role to find cervical cancer when they are still treatable in their pre-invasive stages. Women should be pushed to take charge of their health and participate actively in various screening programs. By addressing the inhibitor factors like uncomfortable process and lack of symptoms, one can improve poor attitude towards PAP smear practice. Health professionals must address areas of cervical cancer risk factors.

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