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Knowledge and Awareness about Cervical Cancer amongst Physiotherapist of Ahmedabad- An Observational Study

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ABSTRACT

Background: Frequent cancer affecting women in India are breast, cervical, oral cavity, lung and colorectal cancer. Majority of women die from cervical cancer in India than in other country. By employing suitable screening and prophylactic programmes, cervical cancer could potentially be a preventable disease. However, inadequate knowledge and awareness can result in under- utilization of the preventive strategies. Belief and practices observed by general public could be impacted in a positive way, when adequate knowledge is provided by health care professional. Hence it is, necessary to know if they have the knowledge and awareness about the most preventable cervical cancer.
Aims and Objectives: To evaluate the knowledge and awareness about cervical cancer amongst physiotherapist of Ahmedabad.
Method: A cross sectional study was conducted on Physiotherapists of Ahmedabad. Data were collected using questionnaire which was pre-designed and self-administrated. The questionnaire included specific questions to test participants' knowledge and awareness related to cervical cancer. Data analysis was done using Microsoft Excel 2019.
Results: Data from 100 participants were included for final analysis. The majority of study participants were female (n=70; 70%). The mean age of participants was 24.5 years. Only 60-70% participants appeared to have good level of knowledge (In terms of risk factor, vulnerability, signs and symptoms, ways of prevention and ways of screening) and awareness.
Conclusion: The study shows fair knowledge and awareness of cervical cancer amongst physiotherapist.

Keywords: HPV Vaccine, Knowledge, Awareness, Cervical cancer, PAP Smear, Physiotherapist

INTRODUCTION

Cervical Cancer is one of the most common cancers found in women living in low- and middle-income countries. After Cardiovascular disease, Cancer is second most common cause of death in Indian Women [1] accounting for 29% in India. [2] By Definition, Cervical cancer is the abnormal growth of cells in cervix. The cervix is covered by glandular cells on endocervix (towards uterus) and squamous cell on ectocervix (towards vagina). The place where both this cell met is called Transformation Zone-a commonest site for cervical cancer origin. [3]

Cervical cancer is caused by HPV (Human Papilloma Virus) infection which is detectable in 99% of cervical tumours. [4] HPV can transmit via vaginal, anal, oral or genital sexual contact, many of HPV infection are self-resolving however certain stains of HPV (HPV 16-18) are responsible for most of cervical cancer worldwide. [1] Cervical cancer, mostly affects the younger women i.e. less than 40 years of age; serving mortality rate 54 years. [2]

The risk factors for cervical carcinoma are [3,5-10]

- Persistent infection with a high-risk HPV
- HIV - AIDS
- Presence of other Sexually Transmitted Disease along with HPV
- Smoking
- Use of Oral Contraceptive Pills
- Multiple Pregnancy by age of 20
- Previous Cancer of Vagina, Vulva, Kidney or Urinary Tract
- Presence of Family History
- Multiple sexual partners
- Race (More in blacks and Hispanics)
- Low socio-economic Status
- Early onset of sexual activity
- Alcohol
- Obesity and Diet

The risk could be lowered by using Safer sex (barrier method) to reduce the risk of HPV Infection, by incorporating various vaccination and screening programs to detect precancerous abnormal cell changes in cervix. Cervical cancer is a slow growing thus the changes that begins in ectocervix could be Non-Invasive (or dysplasia or pre-cancer or carcinoma-in-situ) but without treatment it can turn to invasive (malignant) and can metastasise via blood or lymph to deeper tissues and various locations. [4]

There are no symptoms in early stages, however in advanced stages post coital or unexplained vaginal spotting bleeding, persistent vaginal discharge and pelvic pain are witnessed.

TYPES OF CERVICAL CANCER

Cervical Cancer are of 2 types [11]

1. Squamous Tumours: It is the most common type accounting for 70-80%. It begins in thin and flat cells.
2. Glandular tumours (Adenocarcinoma): It accounts for 20-25% of cancer. It conquers the cervical cell that makes mucus and other fluids.

STAGES OF CERVICAL CANCER

Stage1: Cancer is confined to Cervix and no spread to nearby tissues

Satge2: Cancer includes cervix and vagina but hasn't spread to the pelvic side wall or lower portion of vagina

Stage3: Cancer has spread to nearby organs (metastasise) such as lungs, liver or bones

Diagnosis [8] can be done by clinical examination, Colposcopy (Test which involves looking at cervix with magnifying lens) and Cone Biopsy (Removal of cone shaped tissue from cervix under general anaesthesia) and by cytological examination - PAP Test (Papanicolaou Test)

Table1: Showing the performance and characteristics of screening methods [12]

Screening Test	Sensitivity	Specificity
1.Conventional Cytology	Moderate (44-78%)	High (91-96%)
2.HPV DNA Testing	High (66-100%)	Moderate (61-96%)
3.Visual Inspection Methods		
VIA	Moderate (67-79%)	Low (49-86%)
VIAM	Moderate (62-73%)	Low (86-87%)
Colposcopy	Low (44-77%)	Low (85-90%)

Depending upon the stage of cancer, treatment is decided which mainly includes: Surgery-such as conisation (removal of a cone shaped section of cervix), Hysterectomy (Removal of uterus and cervix), Trachelectomy (Leaves some part of uterus), Chemotherapy ,Radiotherapy, Chemoradiotherapy and Targeted Therapies (these are drugs that blocks the signals to cancer cells depriving them of growth factors and oxygen)

The association of cervical cancer and HPV infection implies that cervical cancer can be prevented by HPV Vaccination. The two vaccines designed for Prevention are Cervarix (Bivalent Vaccine) and Gardasil (Quadrivalent vaccine). Early Screening and vaccination help in detection and prevention of cervical cancer. Thus, it is

imperative for a woman between 25-49 years to go for screening of cervical cancer or vaccination once a year.

Physiotherapists mainly include the female therapist and are widely involved in treating the various musculoskeletal problems such as back pain and pelvic pain. Many a times a female patient may complain of pelvic pain which could be symptom of cervical cancer, hence it is necessary for the physiotherapist to have the thorough knowledge about cervical cancer. There are number of studies, conducted to evaluate the knowledge and awareness of cervical cancer amongst different health professionals and caregiver. [13] However, there are few studies assessing the knowledge and awareness in physiotherapists. Many a times female patients prefer to have women healthcare professionals to share issues related to gynaecological conditions due to various traditional and religious belief. Hence it is necessary for the physiotherapist to have the thorough knowledge about cervical cancer. Therefore, the aim of the study was to assess the knowledge and awareness about cervical cancer amongst physiotherapist of Ahmedabad.

MATERIALS AND METHODS

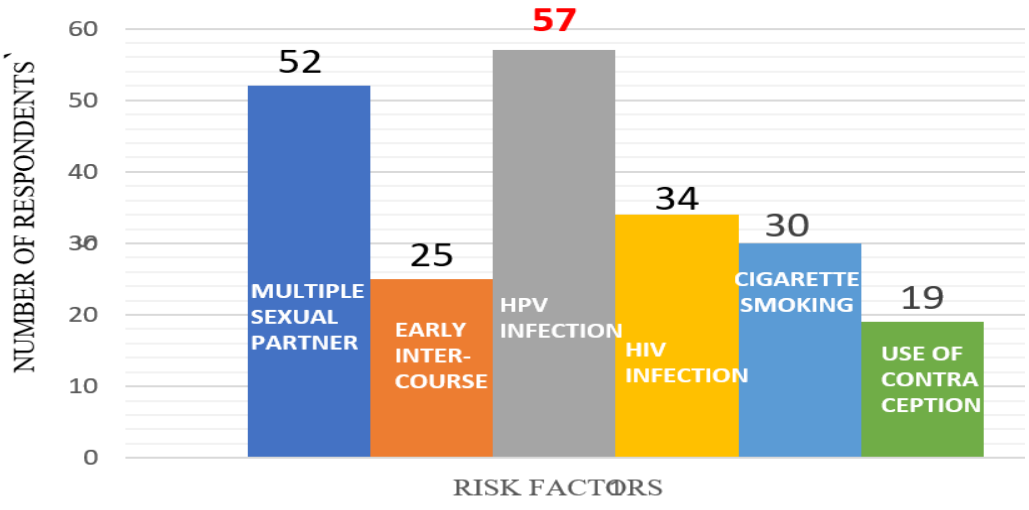
Study design and data collection- A Study was carried out in Ahmedabad city in 2019 which included 100 physiotherapist having age between 22-30. The questionnaire was developed from previously published studies. [14-20] Respondents were randomly selected. Before conducting a survey, the consent form was being signed by the respondents and questionnaire was handed to the them after signing for the one.

The questionnaire designed included the sociodemographic data, and various questions to assess knowledge and awareness of cervical cancer. Questionnaire was in English and all participants were proficient in language.

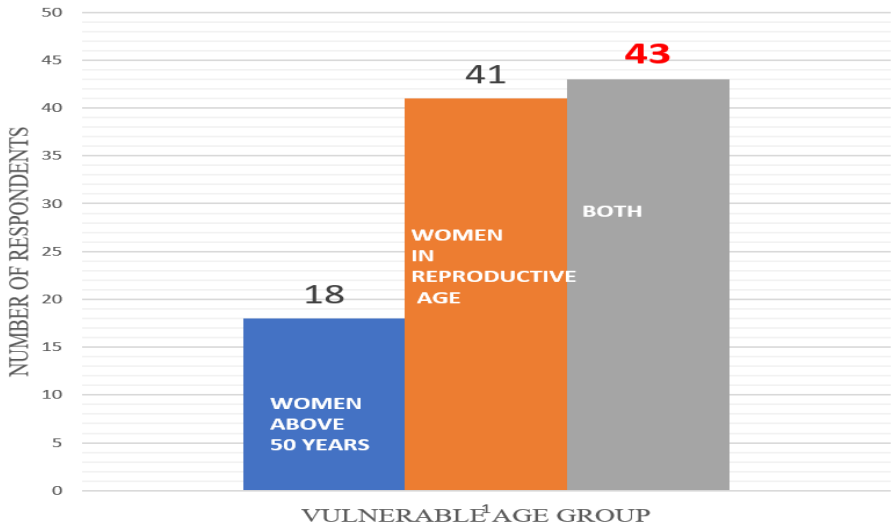
Statistical analysis -The data was analysed using Microsoft Excel 2019, data having all the information were considered and incomplete data were not computed.

RESULTS

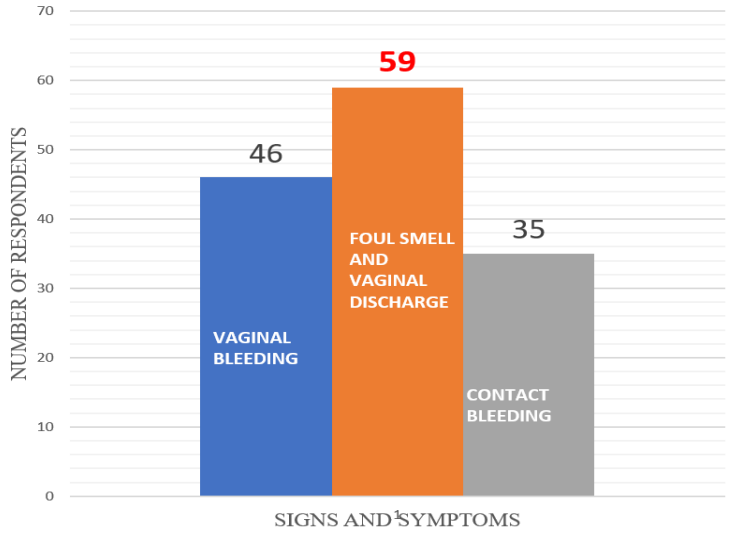
Sociodemographic Characteristics- The mean age of participants was 24.5 years. Out of 100, 70 were females and 30 were male; amongst which 3 participants were married. The results show majority of respondents were having fair knowledge and awareness about the cervical cancer.



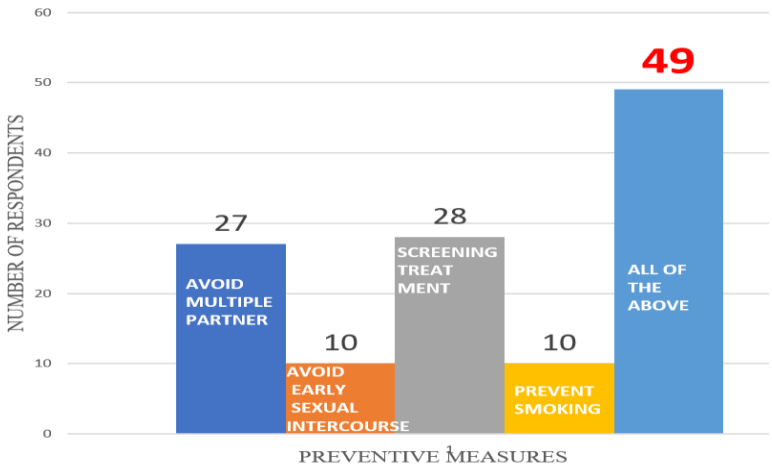
Graph 1. Knowledge amongst the participants regarding risk factors for cervical cancer.



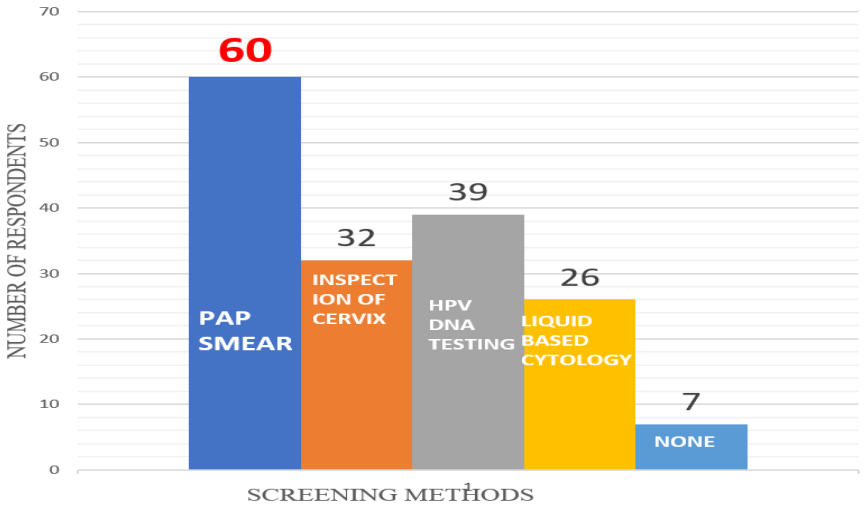
Graph 2. Knowledge about chance of vulnerability.



Graph 3. Knowledge about signs and symptoms amongst participants



Graph 4. Knowledge about preventive measures



Graph 5. Knowledge about ways of screening amongst participants

Table 2: Awareness about cervical cancer amongst participants.

Statements describing attitude of subjects towards cervical cancer	AGREE	DISAGREE	NEITHER AGREE NOR DISAGREE
Is carcinoma of cervix is highly prevalent and leading cause of death of malignancies in Ahmedabad	70	18	12
Any young women can develop cervical cancer ?	34	39	27
Carcinoma of cervix cannot be transmitted from one person to other	70	12	18
Screening helps in prevention of carcinoma of cervix	31	23	46
Screening causes no harm to the client	46	23	30
Screening for cervical cancer isn't expensive	48	34	18
If screening is free and causes no harm will you recommend for screening ?	63	20	17

DISCUSSION

The present study was conducted amongst physiotherapists to evaluate their knowledge and awareness related to cervical cancer.40-60% of the therapist had fair knowledge related to cervical carcinoma. In the present study, 57% of the participants had knowledge about HPV Infection as the primary risk factor which is good as they can be made aware about HPV Vaccine. Vaccination is a first step towards prevention and our respondents showed good knowledge in comparison to other studies which suggested low knowledge about HPV. [21-23] About 52% considered contact with multiple partners as a second most risk factor for cervical carcinoma where as in study done by Ali et mentioned it to be 45%. [24] In the present study 59% and 46% mentioned foul smell -vaginal discharge and abnormal vaginal bleeding as their sign and symptoms respectively, whereas the prominent symptom seen in sufferers are vaginal bleeding, suggesting the need to impart knowledge about signs and symptoms of cervical cancer. Results shows that knowledge is lacking amongst vulnerable age criteria as 43% opted for both (reproductive age and women below 50 years) whereas the maximum vulnerability is seen in women belonging to reproductive age [2] As a preventive measures for cervical carcinoma 27% considered avoiding of multiple partners, where as 49% considered all of the option as a preventive measure which included avoiding early sexual

intercourse with multiple partner, screening treatment and avoiding cigarette smoking. Thus, the present study shows that almost 60% respondents were aware about secondary preventive way of Cervical Carcinoma which is PAP Smear (having 90% sensitivity [12]) suggesting a good knowledge amongst the physiotherapists. 70% of participants consider that cervical cancer is a leading cause of death which isn't true. The Mortality to Incidence Percentage Ratio (MI%) of Cancer in Gujarat is 27.60% amongst which 11.40% is contributed alone by Cervical Cancer, [25] suggesting the lack of awareness related to prevalence. 39% participants considers that any young women cannot acquire carcinoma cervix where as 27% doesn't agree nor disagree with the same suggesting uncertainty, whereas studies suggest that maximum vulnerability is seen in young (reproductive) group. [2] 31% considers screening as a best measure for prevention and 46% considers it to be harmless, the study shows good readiness recommendation of the free screening programme which is about 63%.Although awareness needs to be spread regarding the role of screening in prevention because detecting the pre-cancerous changes allows us for early intervention.

Cervical cancer is totally preventable disease, if proper screening is done followed by the periodic dose of vaccine. The study thus implies that if physiotherapists doesn't receive education to increase their functional knowledge, understanding and acceptance of routine cervical cancer screening, then they may not be able to promote behaviour change in themselves, in their patient or in general population. Adequate knowledge is an important determinant of positive attitude and because our study population did not have the sufficient knowledge, their awareness were also concerning.

CONCLUSION

The healthcare providers must make sure that the healthcare professionals are informed about cervical carcinoma which will be a beneficial step towards preventing, screening and treatment of cervical cancer.

Limitations

Sample size is less and the ratio of male -female respondents isn't equal.

Future Suggestions

The study can be incorporated into different age group or in general population.

Conflict Of Interest

None

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