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Original Article

A Study a Descriptive Study to Assess the Knowledge Regarding Cervical Cancer Among Females Aged 18-65 In Rural Areas at Jaipur, Rajasthan at Jaipur (Raj.)

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Abstract :

Background: Cancer of the cervix is a major burden on women's health worldwide. Cervical Cancer is the fourth most common cancer in women, ranking after breast cancer, colorectal cancer and lung cancer. While Cervical Cancer cases are declining in the developed world, they pose a heavy burden on developing countries, where the risk of developing Cervical Cancer is 35% greater compared to developed countries.

Material and Methods: It was a non-experimental descriptive research design. 80 females 18-65 years were selected using non probability convenient sampling technique from selected rural areas of Jaipur. A structured knowledge questionnaire was developed to assess the knowledge of females regarding cervical cancer, its screening and HPV vaccination. Data was collected from November 2021 to December 2021.

Results: Majority of the participants (45%) were 21-35 years of age. Nearly two third 67.2% were married, more than one third (36.3%) of the participants were homemaker. 41.3% participants were having average knowledge, 30% participants had good knowledge and 28.7% participants had below average knowledge level regarding cervical cancer. 40% participants had average knowledge regarding screening of cervical cancer, 33.8% had good and 26.2% had below average. 48% participants had average knowledge regarding HPV vaccination, 32% had good knowledge and 20% participants had below average. The overall mean knowledge score of the participants was 19.15 and SD was 5.9. One sample t test was used to compare the mean of the variables. Total knowledge score, knowledge regarding definition, risk factors of cervical cancer, sign and symptoms of the cervical cancer, prevention of the cervical cancer, screening of the cervical cancer and HPV vaccination was significant at $p<0.05$.

Conclusion: This study concluded that females aged 18-65 years residing in rural area have average knowledge regarding cervical cancer, screening of the cervical cancer, and HPV vaccination for the prevention of the cervical cancer. Somehow the knowledge level varies in these three components among females but majority falls under average knowledge level category.

Keywords: Knowledge, Cervical cancer, Screening, HPV vaccination, 18-45 age.

INTRODUCTION

Cancer of the cervix is a major public health concern worldwide and remains the second leading cause of cancer-related deaths among women in developing countries like India. Although screening programmes have significantly reduced cervical cancer incidence in developed countries, it continues to pose a substantial burden in developing nations (1).

Globally, approximately 570,000 new cases and 311,000 deaths due to cervical cancer were reported in 2018. It is the fourth most common cancer among women worldwide and the second most common cancer among Indian women aged 15–44 years. India accounts for nearly 25% of global cervical cancer deaths. However, cervical cancer is preventable and curable when detected early. Its long pre-invasive stage provides an opportunity for early screening and treatment. Pap smear and cytological screening are important secondary preventive measures that help reduce mortality (2).

Developing countries account for approximately 85% of cervical cancer cases, with India contributing nearly one-fourth of the global burden. This may be attributed to the lack of regular screening programmes, limited

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awareness, and low participation in screening, particularly among rural women. These challenges may be more prevalent among tribal women, highlighting the need to assess their awareness regarding cervical cancer and its prevention (3).

In India, over 120,000 women are diagnosed with cervical cancer annually, and approximately 67,000 die from the disease. The actual burden may be higher, particularly in rural areas where limited access to healthcare and diagnostic facilities may result in underreporting (4).

Cancer is the second leading cause of death worldwide, accounting for approximately 9.6 million deaths in 2018. According to WHO, nearly one in six deaths globally is due to cancer, with around 70% occurring in low- and middle-income countries (5).

Gynecological cancers adversely affect women's physical, psychological, reproductive, and social well-being. The diagnosis, prolonged treatment, fear, and possible complications can cause stress, body image concerns, and difficulties related to sexual identity and fertility. These effects may also reduce quality of life and negatively impact partners, families, and social relationships (6,7).

Women with HPV, HIV, herpes simplex virus-2 and other sexually transmitted infections may have an increased risk of cervical cancer. Lack of regular screening, prolonged use of certain hormonal contraceptives, and prenatal exposure to diethylstilbestrol are also associated with specific gynecological cancer risks (8). Therefore, awareness regarding risk factors, causes, symptoms, and regular screening is essential. According to PBCR Chandigarh (2013), the age-adjusted incidence rate of cervical cancer was 8.8, highlighting the importance of public awareness and early detection (9).

Cancer is a major cause of morbidity and mortality worldwide, with approximately 18.1 million new cases reported in 2018. WHO projected a 45% increase in cancer-related deaths between 2008 and 2030. The global economic burden is also substantial, estimated at US$1.6 trillion annually in 2010, affecting healthcare systems, individuals, and families (10).

OBJECTIVES

1. To assess the knowledge about cervical cancer among females aged 18-65 years residing in selected rural areas at Jaipur.
2. To assess the knowledge about screening of cervical cancer among aged 18-65 years residing in selected rural areas at Jaipur.
3. To assess the knowledge about HPV vaccine among females aged 18-65 years residing in selected rural areas at Jaipur.
4. To find the association of knowledge regarding cervical cancer among females aged 18-65 years residing in selected rural areas at Jaipur with their selected demographic variables.

HYPOTHESIS

H01: Females aged 18-65 years will have poor knowledge regarding cervical cancer, screening of cervical cancer and HPV vaccination.

H02: There will be significant association between knowledge level and selected socio-demographic characteristics of females aged 18-65 years

MATERIALAND METHODS:

Research Approach:

The research approach used by the investigator was quantitative research approach, which helps to provide factual information about the variables under the study.

Research Design:

The design used in the study was non experimental descriptive research design which helps to provide factual information about the variables.

Setting of The Study:

The study conducted in the rural area at Jaipur, Rajasthan. A rural area is an area of land outside the densely populated urban areas in a town or city.

Population:

Target population

The target population for the study included all women who were residing at rural area.

Accessible population

Accessible population for the study included women who were residing at selected rural area of Jaipur, Rajasthan.

SAMPLE

The study sample comprised of the women who fulfilled the inclusion criteria, were available during the period of data collection November 2021 to December 2021 and who are willing to participate in the study.

SAMPLE SIZE:

A target of 80 subjects was decided based on the statistical analysis of the pilot study at α= 5% and power = 80%.

SAMPLING TECHNIQUE:

Convenience sampling technique was used for the selection of females residing in

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rural area of Jaipur city.

DATA COLLECTION TOOL

It consisted of 2 section

Section A: Socio demographic Data

Consisted of demographic variables which included age, religion, educational status of women, educational status of husband, monthly family income, occupation of wife, husband occupation and marital status.

Section B: Structured knowledge questionnaire

A structured knowledge questionnaire was developed to assess the knowledge of females regarding cervical cancer, its screening and HPV vaccination. It comprised of 31 items. It had subdomains. The total items regarding cervical cancer were 1-6, risk factors of cervical cancer were 7-11, signs and symptoms of cervical cancer were item 12 to 16, prevention of cervical cancer were 17-20, regarding HPV vaccination it was item no 21-26 and regarding pap smear it was item no 27-31. Knowledge was classified as "good" if the scores were between 25 and 31 (full marks), "moderate" for scores between 16 and 24 and "poor" for scores between 0 and 15.

ETHICAL CONSIDERATION

The ethics committee of Maharaj vinayak Global University Jaipur approved the study protocol (Annexure-). Participant information sheet (Annexure VIII) and participant informed consent form (Annexure IX) was developed. Informed written consent was taken from the study participants. Confidentiality and privacy of information given to participants were maintained throughout the study period.

3.11 RELIABILITY OF THE TOOL

The reliability of the tool was established by test retest for knowledge questionnaire tool with r value of 0.8. It was found that the tool was reliable and practicable to implement in the main study.

3.12 PILOT STUDY

A pilot study was conducted in order to assess the feasibility of the study on 15 participants who met inclusion criteria. The participants were selected from the rural area of Jaipur. The participant information sheet was provided to all participants and written 15 informed consent was taken after full explanation about the study. Confidentiality and privacy of the information given by the participant were maintained. Pilot study data were collected using the questionnaire, and training was given. Data were analyzed based on the same objectives of the study. The study was found to be feasible and the plan for data collection was workable.

RESULTS

Table 1: Socio-demographic Characteristics of the Participants (N=80)

Socio-demographic Variables	Category	Frequency	Percentage
Age	Below 20 years	17	21.3
	21–35 years	36	45.0
	36–50 years	14	17.5
	Above 50 years	13	16.3
Marital Status	Single	24	30.0
	Married	53	67.2
	Separated/Divorced	0	0
	Widow	3	3.8
Educational Status of Women	Professional or honours	11	13.8
	Graduates or post graduates	14	17.5
	Intermediate or post high school	15	18.8
	High school certificate	13	16.3
	Middle school certificate	11	13.8
	Primary school certificate	6	7.5
	Illiterate	10	12.5
Educational Status of Husband	Professional or honours	10	12.5
	Graduates or post graduates	13	16.3
	Intermediate or post high school	23	28.7
	High school certificate	24	30.0
	Middle school certificate	9	11.3
	Primary school certificate	1	1.3
	Illiterate	0	0

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Educational Status of Husband	Professional or honours	10	12.5
	Graduates or post graduates	13	16.3
	Intermediate or post high school	23	28.7
	High school certificate	24	30.0
	Middle school certificate	9	11.3
	Primary school certificate	1	1.3
	Illiterate	0	0
Occupation of Women	Professional	4	5.0
	Business	16	20.0
	Homemaker	29	36.3
	Labourer	22	27.5
	Other	9	11.3
Occupation of Husband	Professional	23	28.7
	Business	34	42.5
	Labourer	13	16.3
	Other	10	12.5
Monthly Family Income (INR)	Above Rs. 18,000	35	43.8
	Rs. 13,495–17,999	29	36.3
	Rs. 8,989–13,494	16	20.0
	Rs. 5,387–8,988	0	0
	Rs. 1,803–5,386	0	0
Religion	Hindu	54	67.5
	Muslim	16	20.0
	Christian	10	12.5
	Others	0	0

Table 2: Level of Knowledge Regarding Cervical Cancer

Knowledge Level	Frequency	Percentage
Good	24	30.0
Average	33	41.3
Below Average	23	28.7
Total	80	100

Table 3: Level of Knowledge Regarding Screening of Cervical Cancer

Knowledge Level	Frequency	Percentage
Good	27	33.8
Average	32	40.0
Below Average	21	26.2
Total	80	100

Table 4: Level of Knowledge Regarding HPV Vaccination

Knowledge Level	Frequency	Percentage
Good	26	32.0
Average	38	48.0
Below Average	16	20.0
Total	80	100

Table 5: Mean Difference of Knowledge Regarding Cervical Cancer (N=80)

Variables	Mean	SD	One Sample t-test	p-value
Total Knowledge Score	19.15	5.9	28.64	<0.01**
Cervical Cancer	3.65	1.0	30.89	0.02*
Risk Factors	2.94	1.1	22.60	0.04*
Signs and Symptoms	2.89	1.5	17.20	0.02*
Prevention	1.74	0.4	14.89	0.02*
Screening	3.19	0.9	29.82	<0.01**
HPV Vaccination	5.49	2.1	26.66	<0.01**

*Note: *p<0.05 significant; **p<0.01 highly significant.*

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In the view of above findings it has been cleared that females between 18-65 years age had significant association between knowledge regarding cervical cancer, Screening of cervical cancer and HPV vaccination and certain demographic variables. So null hypothesis H02 rejected and H2 is accepted.

DISCUSSION

Majority of the study population belong to upper income class. Employed women had higher education. Educated women had higher knowledge than house makers. Community based studies from India have found that educated women had better knowledge.

In our study there was statistical significant association between knowledge regarding HPV vaccination with education and occupation of women.

RECOMMENDATIONS

The investigator recommends

- Utilize the findings of the study to plan regular and periodic health screening in rural region through community health centres.
- To motivate public to organize campaign about risk factors of cervical cancer , to adapt early life style practices and to modify the modifiable risk factors to prevent cervical cancer
- To conduct studies to identify the role of each single risk factor towards the causation of cervical cancer.
- To conduct similar studies in large population and in different areas

CONCLUSION

This study concluded that females aged 18-65 years residing in rural area have average knowledge regarding cervical cancer, screening of the cervical cancer, and HPV vaccination for the prevention of the cervical cancer. Somehow the knowledge level varies in these three components among females but majority falls under average knowledge level category. A statistical significant association is found between knowledge level regarding cervical cancer, screening of cervical cancer and educational status of women. A statistical significant association was found between knowledge level regarding HPV vaccination and educational status of women and her occupation.

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