

Original Research Article

Determinants of cervical cancer screening adherence among rural women of Chengalpattu district

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ABSTRACT

Background: Cervical cancer is the second most common cancer among women in India even though it is a vaccine preventable disease. Women ever undergone a screening for cervical cancer in India is only 1.7% in rural (NFHS-5). The focus of this study was to identify the factors affecting cervical cancer screening among rural women of Chengalpattu district.

Methods: It is a community based cross sectional study conducted in 12 villages coming under field practicing areas of rural health training centre of Chettinad Hospital and Research Institute in Chengalpattu district. Sampling was done by using Simple random sampling method and our sample size was 220. A pre-tested, semi-structured questionnaire was used for data collection. The collected data was entered in Microsoft Office Excel and analysis was done using SPSS software version 21.

Results: The Mean (SD) age of the study participants was 45±10.17 years. Among all the participants, 181 (82.3%) were unaware about any method of cervical cancer screening. Factors that are barriers to cervical cancer screening includes feeling of being healthy (79.6%), fear of finding out cancer (71.9%), anticipation of pain (68.1%).

Conclusions: Present study found out that most study participants were unaware about the methods of cervical cancer screening. It is important to educate women about cervical cancer screening methods to overcome barriers.

Keywords: Cervical cancer, Hygiene, Pap smear test, Screening test

INTRODUCTION

Cervical cancer is the second most common cancer among women in India even though it is a vaccine-preventable disease.¹ Significant number of cervical cancers and mortalities occur in Asian countries, and more than one-third of the world's cervical cancer burden is seen in India and China.² Crude cervical cancer incidence per 100000 women in India (2020) is 18.7.³ According to NFHS-5, the percentage of women ever undergone a screening test for cervical cancer in India is only 2.2% in urban and 1.7% in rural, even after the

nationwide screening program (National Programme for Prevention and Control of Cancer, Diabetes, CVD and Stroke, 2017) is being implemented.

Due to certain barriers like embarrassment, anticipation of pain, fear of finding out cancer, and lack of knowledge about risk factors there is a disparity in the compliance of pap smear testing. Studies show that knowledge about cervical cancer, its prevention, and screening is limited among Indian women of various settings.¹ Economic, cultural, and psychosocial factors have been identified as barriers for the low cancer screening uptake among women.⁴ Due to differences in cultural, biological,

medical, geographic, genetic, and socioeconomic factors, there is a large variation in cancer occurrence and survival not only among different countries but also within the country.⁵

In developed countries the burden of cervical cancer has started to reduce, whereas in developing countries the burden is still high, the risk of developing Cervical Cancer is 35% greater in developing countries in comparison with developed countries.⁹ Not participating in cervical screening examination can delay the diagnosis of cervical cancer which could have resulted in advanced intraepithelial lesion by the time of diagnosis. According to WHO, fewer than 1 in 10 women have been screened for cervical cancer in India.³ Hence, the aim of this study is to determine those factors affecting cervical cancer screening.

METHODS

A community based Cross-sectional study was conducted among 12 villages in the field practising area of RHTC (Rural Health Training Centre) of Chettinad hospital and Research Institute in Chengalpattu district, Tamil Nadu among 220 women of age 30 to 65 years residing in study setting during the period of 3 months (November 2022 to February 2023). The sample size was calculated based on the study conducted by Reichheld et al where the prevalence of poor knowledge about cervical cancer is $p = 84.6\%$.¹ Simple random sampling technique was used to select the required number of study participants. Data was collected using pre tested semi structured questionnaire and was entered into Microsoft excel sheet and analyzed by SPSS software version 21. Categorical data were expressed in the form of percentages. Illustrations of data were done by using tables. The descriptive representation of data was done in the form of frequencies and percentages.

Operational definition: WHO recommends primary screening test for cervical cancer starting from the age of 30 years till 65 years for women of general population.⁵

RESULTS

Among the participants, 34.1% were in the age group of 40 to 49 years, 18.2% were illiterate, 51.8% were semi-skilled workers, and most participants (49.5%) belonged to middle-class socio-economic status according to modified BG Prasad classification (Table 1).

The mean age of participants was 45.85 ± 10.17 and the mean age of marriage in most of the participants was 19.63 ± 2.51 . On average most of the participants had 2 children and the mean age of first childbirth was 21.35 ± 2.44 (Table 2).

About 82.3% of the participants were unaware about any method of cervical cancer screening. 43.2% believe that cervical cancer is contagious and 90% of the participants

have never undergone cervical cancer screening in their lifetime. Only 7.3% have had contact with person suffering from cervical cancer. 43.2% of the participants disagree to the statement that cervical cancer is preventable (Table 3).

Lack of adequate awareness in the society remains the major factor that prevents women from getting screened for cervical cancer. 61.4% had very much to extreme fear of finding out cervical cancer, 55.4% had anticipation of pain, 54.1% avoid cervical cancer screening due to the feeling of being healthy and 51.8% have no family support in getting screened for cervical cancer (Table 4).

Table 1: Socio-demographic characteristics of the participants (n=220).

Variables	Frequency (N)	Percentage (%)	
Age (in years)	30 - 39	65	29.5
	40 - 49	75	34.1
	50 - 59	50	22.7
	60 - 65	30	13.6
Education	Illiterate	40	18.2
	Elementary school	49	22.3
	Secondary school	68	30.9
	Higher secondary	43	19.5
	Diploma/UG	20	9.1
Occupation	Unemployed	42	19.1
	Unskilled	54	24.5
	Semi-skilled	114	51.8
	Skilled	10	4.5
Socio-economic status (modified BG Prasad scale)	Class I	10	4.5
	Class II	82	37.3
	Class III	109	49.5
	Class IV	16	7.3
	Class V	3	1.4
Marital status	Married	188	85.5
	Separated	10	4.5
	Divorced	1	0.5
	Widowed	21	9.5

Table 2: Age distribution of our study participants (n=220).

Variable	Mean	Standard deviation
Age of the participants (n=220)	45.85	10.17
Age at marriage (n=220)	19.63	2.51
Number of children for each participant (n=220)	2.07	0.88
Age at first childbirth (n=207)	21.35	2.44

Table 3: Perspectives of study participants about cervical cancer and its screening (n=220).

Perspectives	Frequency (N)	Percentage (%)
Are you aware of any one method of cervical cancer screening		
No	181	82.3
Yes	39	17.7
Do you think cervical cancer is contagious		
No	125	56.8
Yes	95	43.2
Have you ever undergone cervical cancer screening		
No	198	90.0
Yes	22	10.0
Contact with the person suffering from cervical cancer		
No	204	92.7
Yes	16	7.3
Cervical cancer is preventable		
Strongly disagree	48	21.8
Disagree	47	21.4
Neutral	28	12.7
Agree	62	28.2
Strongly agree	35	15.9

Table 4: Factors affecting cervical cancer screening among study participants (n=220).

Factors	Frequency (N)	Percentage (%)
Adequate awareness in society about cervical cancer		
Not at all	135	61.4
A little	62	28.2
Moderate amount	16	7.3
Very much	3	1.4
Extremely	4	1.8
Fear of finding out cancer		
Not at all	43	19.5
A little	19	8.6
Moderate amount	23	10.5
Very much	84	38.2
Extremely	51	23.2
Anticipation of pain		
Not at all	40	18.2
A little	30	13.6
Moderate amount	28	12.7
Very much	76	34.5
Extremely	46	20.9
Feeling of being healthy		
Not at all	28	12.7
A little	17	7.7
Moderate amount	56	25.5
Very much	78	35.5
Extremely	41	18.6
Had family support		
Not at all	61	27.7
A little	53	24.1
Moderate amount	53	24.1
Very much	43	19.5
Extremely	10	4.5

DISCUSSION

Goal of this study was to assess the knowledge of rural women on cervical cancer and the barriers that prevent them from getting screened for cervical cancer. In this discussion we focus on, descriptive analysis done on responses to questions that assessed risk factor knowledge and barriers.

In our study the knowledge about risk factors is very poor among the respondents, Only 17.7% had knowledge about cervical cancer, its screening and risk factors. The study conducted by Reichheld et al 85% had poor knowledge on cervical cancer which is similar to our study.¹ And 55.9% believe that cervical cancer is not preventable and 43.2% have an idea that cervical cancer is contagious. Among the respondents only 10% have undergone screening for cervical cancer in their lifetime which is similar to Reichheld et al where only 7.1% had undergone screening at least once in their lifetime for cervical cancer. About 30.9% people agree to the fact that cervical cancer screening must be started at 30 years of age.¹

In our study about 38.6% agree that poor hygiene is a risk factor and 87.3 % do not agree that OCP is a risk factor for cervical cancer. From the previous study by Akinlotan et al, where only a few recognized long-term uses of OCPs as a risk factor and 90.5% believe that multiple pregnancies cannot be a risk factor.³ Our study participants majority 88.6% of people they do not believe that early marriage can be risk factor and 61.8% acknowledged that foul smelling vaginal discharge is an early symptom for cervical cancer. A similar study by Thulaseedharan et al, shows that majority of the females in child bearing age group was unaware of the signs and symptoms of cervical cancer.^{6,12}

Poor knowledge among our study participants was identified as the major factor that prevented rural women from getting screened for cervical cancer. Apart from that, fear of finding out cancer was another major determinant. Almost 79.6% did not want to get screened for as they had the feeling of being healthy. In a study conducted by Mahalakshmi et al, 72% of the participants had the fear of finding out cancer similar to our study results. And about 68% of the people had anticipation of pain due to the screening test as a barrier.⁴

Apart from other factors expenditure for the screening test was also a barrier for 45.9% of the participants.^{4,13} Embarrassment plays a major role in about 45.5% of the people. Lack of family support in cervical cancer screening was a barrier among 48.1% of the participants. Only 6.3% said that lack of time as a barrier and 51.4% of the participants believed that they would be called up for multiple visits. Only 5% had a language barrier with the health care provider. 3.2% said that they do not have a nearby health facility that can provide cervical cancer screening test facility.^{4,9,11}

CONCLUSION

Psychosocial factors, the major barriers for screening uptake in women have remained unchanged over the years. Increasing awareness campaigns, usage of decision-making aids and changes in government policies are crucial for improving the rate of uptake and successful implementation of national screening programs.

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Ethical approval: The study was approved by the Institutional Ethics Committee

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