ORIGINAL ARTICLE

A Cross Sectional Study to Assess Cervical Cancer Screening Behavior Among Women

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Abstract

Background: Cervical cancer is the most common cancer among Indian women of the reproductive age. Even though cervical cancer is a preventable cancer through regular screening, only a small proportion of the eligible women undergo Pap smear screening due to ignorance of risk factors, symptoms and prevention, stigma and misconceptions about gynecological diseases and lack of national cervical cancer screening guidelines. *Materials and methods:* A descriptive cross sectional survey was conducted to assess cervical cancer screening behavior among women in the group of 30–60 years of age residing in selected tribal settlements of Idukki district Kerala using multistage cluster sampling. Practice assessment questionnaire was used to collect cervical cancer screening behavior among women. It consisted of 12 questions related to preventive strategies of cervical cancer. Data were entered and analyzed using SPSS 20. *Results:* Majority of the women participated in the study belonged to nuclear family (74.4%) and Hindu religion (88.8%). Majority of the women were either housewives (44.4%) or labourers (42.7%). Study findings also revealed that highest proportion of subjects 84.6% had poor practice and 15.4% had average practice regarding prevention of cervical cancer. Significant association was found between practice regarding prevention of cervical cancer with education ($p < 0.001$), type of family ($p = 0.015$), income ($p = 0.002$), age at the time of marriage ($p = 0.003$), number of pregnancies ($p = 0.025$) and number of children ($p = 0.002$). *Conclusion:* Majority of the women were not following suggested recommendations for regular cervical cancer screening. Therefore it is important develop strategies targeting eligible women to increase utilization of cervical cancer screening services.

Keywords: Cervical cancer; Women; Screening behavior.

Introduction

The burden of the cervical cancer in India is enormous and it is the most common cancer among

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Indian women. It is the single largest killer of middle aged Indian women, accounting for 17% of cancer deaths among women in the age group of 30–69.[1] Based on hospital based cancer registries, cancer of the cervix is the leading cancer in Bangalore, and Chennai and second leading cancer in Mumbai and Trivandrum.[2] Number of annual premature death and disability is more for cervical cancer as compared to other cancers among women.[3] Usually these women are diagnosed at an advanced stage rather than precancerous lesions or early stage cancers. It is very fatal if not detected and treated early and has a major impact on women's lives.

Cervical cancer is a highly curable and treatable cancer as compared with other types of cancer if detected at an early stage.

Cervical cancer is one of the most preventable cancers by regular screening programme and engaging healthy life style practices. On the whole, important tool to fight against cervical cancer is regular screening and early diagnosis. Cervical cancer screening through Pap smear testing is extremely useful in detecting the cervical neoplasia at very early stage.[4] Many of the Indian studies reported that women have limited knowledge and negative attitude towards cervical prevention and Pap smear screening, which contributed to their nonparticipation in screening programmes to a large extent.[5,6] So many sociocultural barriers like embarrassment, fear of test result, lack of support from husbands and family, inappropriate attention given to women's health issues and lack of female screening providers are also preventing cervical cancer screening in developing countries. Considering the above facts and personal experience while dealing with cervical cancer patients researcher is strongly to motivated to assess cervical cancer screening behavior of rural Indian women which could provide a base for further interventional studies.

Materials and Methods

Present study was carried out to assess cervical cancer screening behaviour among women in the age group of 30–60 years. Present study was carried out in a selected rural community of Idukki district Kerala. Sociodemographic data sheet was used to collect demographic characteristics of study subjects. It consisted of 17 questions related to the demographic characteristics of the study subjects. Practice assessment questionnaire was used to assess practices of women regarding cervical cancer. It consisted of 12 items regarding preventive strategies of cervical cancer. Questions related to preventive strategies of cervical cancer namely Pap smear screening, menstrual and sexual hygiene and other life style practices related to cervical cancer like use of tobacco and alcohol were included in the questionnaire. A score of 'one' was given if they are following particular behaviour correctly and 'zero' for not following the particular behaviour. Maximum attainable score was 12 and minimum was zero. Overall score was categorized as good practice (more than 75%), average practice (51–75%) and poor practice (0–50%).

Multistage cluster sampling was adopted for the study. Sampling frame consisted of all tribal settlements (tribal communities) of Idukki district Kerala. 419 adult women of age between 30–60 years residing in selected tribal settlements of Marayoor Panchayat of idukki district, Kerala and who fulfilled inclusion criteria were selected to participate in the study. From six selected tribal settlements 419 eligible women were enrolled for conducting the study. Sample size calculation was done by power analysis.

The tool was first prepared in English and translated to Malayalam and re-translated to English by language experts to check the language consistency of the tool. Content validity was established by giving it to 10 experts in the subject field. The reliability of practice assessment questionnaire was done by test retest method and the tool was found to be reliable. The study was conducted after obtaining the formal permission from the authorities. The purpose of the study was explained and informed consent was obtained. Confidentiality was assured to all the subjects. Ethical clearance for conducting the study was taken from institutional ethics committee. Data collection period was from November 2015 to March 2016. Collected data was analyzed using appropriate descriptive and inferential statistics.

Results

A total of 419 women participated in the survey. Majority of the women participated in the study belonged to nuclear family (74.4%) and Hindu religion (88.8%). Majority of the women were either housewives (44.4%) or labourers (42.7%). 21.5% of women included in the study had no formal education. More than two third of the subjects were between the age group of 16–20 years at the time of marriage. In the present study highest proportion of subjects 84.6% had poor practice and 15.4% had average practice regarding prevention of cervical cancer.

Table 1: Association between pre-test practice regarding prevention of cervical cancer with selected sociodemographic variables. N = 419

Sl. No	Variable	Test value	*p*-value
1.	Type of family	6.570	0.015*
2.	Religion	0.397	0.655ns
3.	Education	30.700	0.000**
4.	Occupation	8.659	0.055ns
5.	Income	14.653	0.002
6.	Age	1.154	0.573ns
7.	Age at the time of marriage	13.412	0.003
8.	Number of pregnancies	8.972	0.025*
9.	Number of children	14.047	0.002**

Fisher's Exact Test/chi-square test, *significant at 0.05 level, ns Not significant, **Significant at 0.001 level

Significant association was found between practice regarding prevention of cervical cancer with education (p < 0.001) and type of family (p = 0.015). Women belonging to joint family reported good practice regarding prevention of cervical cancer as compared to those from nuclear family. Women having higher level of education had good practice. Significant association was evident between practice regarding prevention of cervical with income (p = 0.002). Women belonging to high income group had adequate practice as compared to those belonging to low income group. Significant association was found between practice regarding prevention of cervical cancer with age at the time of marriage (p = 0.003). Higher age at the time of marriage was associated with good practice regarding prevention of cervical cancer. Significant association was established between practice regarding prevention of cervical cancer with age at the time of child birth (p = 0.004) and time duration after marriage (p = 0.019). Women who had their first pregnancy at older age had good practice as compared to others. Significant association was seen between practice regarding prevention of cervical cancer with number of pregnancies (p = 0.025) and number of children (p = 0.002) (Table 1).

Discussion

Despite the existence of several screening options, the utilization of cervical cancer screening services was very low among the studied population. It was revealed that 84.6% had poor practice and 15.4% had average practice regarding prevention of cervical cancer. This was in accordance with findings of a study conducted in Karnataka, India which reported only that only 1.35% of women had regular practice on cervical cancer screening behaviour and 97.28% of women never undergone any screening test for cervical cancer. Another study conducted in Tamil Nadu India also reported very poor practice and study results shown that none of the subjects had undergone cervical cancer screening.[7] Another study which supports the findings of the present study was conducted in New Delhi, India, where majority of the women (92.7%) had inadequate practice of cervical cancer screening.[8]

Despite being preventable by appropriate screening strategies, significant underutilization of cervical cancer screening services is reported in many countries. Utilization of cervical cancer screening services depends on various factors and that includes health care associated factors, professionals and women themselves. Lack of communication between health care workers and patients regarding availability of screening services can also leads to poor uptake of cervical cancer screening services. Significant association between practice regarding cervical cancer prevention with type of family and education was revealed in the present study. It was evident that women belonging to joint family reported good practice regarding prevention of cervical cancer as compared to those from nuclear family.

Various studies conducted in India identified education as a significant factor associated with adequacy of cervical cancer screening services. Singh M, Ranjan R, Das B, and Gupta K in 2014[7] revealed that good practices regarding cervical cancer screening among educated and working women. Another which supports the findings of the present study was conducted in AIIMS, Bhopal, where women with education above secondary were more likely to execute positive practices of screening for cervical cancer.[9] This is on account of more access to information about the test through colleagues and media and more opportunities to get tested. In addition women who are employed have a greater chance for social interaction as a result they get to know more about the disease.

On the other hand contrast findings were found in descriptive cross sectional study conducted in a rural community of Kerala, where no significant association was seen between educational status of the women and cervical cancer screening practices.[10] As seen in many studies significant association was found between practice regarding cervical cancer with income. Higher level of practice regarding cervical cancer prevention with higher income was evident in the present study. A cross sectional conducted in a tertiary care hospital of New Delhi by B Das, K Gupta, R Ranjan, M Singh[7] identified consistent findings, where higher level practice regarding cervical cancer screening among women with higher income. Present study also revealed significant association between knowledge, attitude and practice regarding prevention of cervical cancer with income. Similar findings have been revealed in a study conducted in India by B Das, K Gupta, R Ranjan and M Singh.[7]

Present study also revealed significant association between practice regarding prevention of cervical cancer with income. Similar findings have been revealed in a study conducted in India by B Das, K Gupta, R Ranjan and M Singh.[7] Similarly significant association between knowledge, attitude and practice of women and parity was also supported by study conducted in India.

Conclusion

The present study was undertaken to assess the cervical cancer screening behaviour of women. Based on the study findings, it was concluded most of the women had poor practice towards cervical cancer prevention. Awareness campaigns regarding Pap smear test are needed which helps to improve knowledge and in turn improves practice of Pap smear test and it is important in reducing cervical cancer mortality and future cervical cancer burden in India.

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