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Research Article

Self-perceived risk and barriers to cervical cancer screening among patients seeking care at a tertiary care teaching hospital in Tamil Nadu

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ABSTRACT

Background: Identification of characteristics of women, their perceptions of own risk and barriers to accessing existing screening services can provide important information for shaping screening services. The objective of the study was, the present study was undertaken to ascertain the perceptions of risk and barriers to cervical cancer screening by women seeking care at a tertiary care teaching hospital in Tamil Nadu.
Methods: The current survey was planned and executed by the Department of Obstetrics and Gynecology of a tertiary care teaching institution of Tamil Nadu during February to July 2015 using a pre-designed questionnaire among 177 study participants. Inclusion criteria were 18 years and above, non-pregnant and consenting for the survey. Women seeking the antenatal care were excluded from this study. The study population consisted of women seeking family planning services at Obstetrics and Gynecology Department.
Results: The traditional risk factors for development of cervical cancer were observed in a considerable proportion of the study participants. Sexual debut earlier than 20 years was very common mentioned by nearly 67% of participants. Majority of study participants i.e. more than 50% had multiple sexual partners. About 32% of the study subjects felt that they were at no risk of developing cervical cancer and 34.5% felt no need for screening for the condition. Of women perceiving themselves to be at risk of cancer of the cervix, 80% expressed the need for cervical cancer screening compared to 58.75% of those who had no opinion on own risk.
Conclusions: self-perception of not being at risk is documented to be associated with low uptake of screening. Concerned health education programs need to bring clearly to the end user the difference between precancerous lesions and invasive cervical cancer and the treatment options available.

Keywords: Barriers, Cervical cancer screening, Risk, Patients

INTRODUCTION

In developed countries, cervical cancer prevention programmes have been shown to be effective in reducing the incidence of and mortality from cervical cancer, while in developing countries, where these programmes exist, they have failed to meet their objectives due to logistical, financial and social problems.[1] One key issue is to

determine how to obtain high levels of attendance, which is essential to achieving adequate coverage. Barriers to screening uptake include a lack of knowledge about the disease, a lack of familiarity with the concept of prevention, the geographical and economic inaccessibility of care, the poor quality of services and a lack of support from husbands and families.[2]

Cervical cancer is the third most common cancer in the world and the commonest malignancy found among the Indian women. Almost 200,000 women, all over the world, died of this disease in 2000.[3] In India, about 100,000 women develop this cancer every year constituting about 16 per cent of the world's annual incidence of cancer.[4] In developing countries, 80 per cent of the cervical cancers are incurable at the time of detection due to their advanced stage4. According to AHCPR (Agency for Health Care Policy and Research), a woman's lifetime risk of developing and dying of invasive cervical cancer is nearly 1 per cent and 0.3 per cent respectively.[5,6]

Apart from Pap smear screening, newer low cost techniques such as visual inspection with acetic acid (VIA) and visual inspection with Lugol's iodine (VILI) have been developed and are being evaluated. There is growing need to assess the health seeking behaviour of women meant to benefit from such new approaches. Identification of characteristics of women, their perceptions of own risk and barriers to accessing existing screening services can provide important information for shaping screening services as developing countries prepare to adopt emerging and more affordable technologies such as visual inspection approaches. Therefore the present study was planned with an objective to ascertain the perceptions of risk and barriers to cervical cancer screening by women seeking care at a tertiary care teaching hospital in Tamil Nadu.

METHODS

The current prospective hospital based study was planned and executed by the Department of Obstetrics and Gynecology of a tertiary care teaching institution of Chennai (Tamil Nadu) during February to July 2015 using a pre-designed questionnaire. Inclusion criteria were 18 years and above, non-pregnant and consenting for the survey. Women seeking the antenatal care were excluded from this study. Department of Obstetrics and Gynecology is providing super specialty care to underserved population and serving primarily patients mainly from lower socio-economic strata of community not only from Chennai but also from neighboring cities and states. On an average 70-120 patients seek care at Department of Obstetrics and Gynecology, on outpatient (OPD) basis per day. So this institution provided us a perfect base to plan and execute this study.

The study population consisted of women seeking family planning services at Obstetrics and Gynecology Department. Women fulfilling the inclusion criteria were briefed about nature and purpose of the study and requested to participate. After expressed willingness they were enrolled for the study. Informed consent was obtained from the study participants. Study participants were approached to undergo the screening procedure. They were first interviewed by a pre-designed structured questionnaire to capture their perceptions to cervical cancer screening. The visual cervical cancer screening services did not impose any financial burden on the study participants. They were informed of the various available approaches including Pap smear, VIA and VILI. Anonymity of the study subjects was maintained. Informed consent was obtained. Ethical committee approved the study.

Descriptive statistics were derived for socio-demographic characteristics, known risk factors and perceptions of risk related to developing cervical cancer. For open ended questions, the responses were grouped into broad categories and then frequencies of the responses calculated. Correlates of perceived need for screening were ascertained. All the questionnaires were manually checked and edited for completeness and consistency and were then coded for computer entry. After compilation of collected data, analysis was done using Statistical Package for Social Sciences (SPSS), version 20 (IBM, Chicago, USA). The results were expressed using appropriate statistical methods. Chi-square test was applied to test for proportions wherever applicable. Two-tailed $P < 0.05$ was considered as statistically significant.

RESULTS

Of the 221 patients approached, 17 patients refused to participate and 204 patients were interviewed giving a response rate of 92.3%. Out of collected data of 204 subjects, data of 27 subjects were discarded owing to its incomplete nature. Therefore data of 177 subjects were processed and analysed finally after data cleaning. Mean age of study subjects was 31.6 years with standard deviation of 6.2 years whereas mean parity was 3.2 with a standard deviation of 1.7.

Study participants self-reported distribution of known risk factors for cervical cancer. The traditional risk factors for development of cervical cancer were observed in a considerable proportion of the study participants. Sexual debut earlier than 20 years was very common mentioned by nearly 67% of participants. Majority of study participants i.e. more than 50% had multiple sexual partners. The high rate of contraceptive use was observed because study population consisted of women seeking family planning services (Table 1).

About 32% of the study subjects felt that they were at no risk of developing cervical cancer and 34.5% felt no need for screening for the condition. Even though only approximately 23% of all respondents felt that they were

at risk of the condition, about 65% of all participants felt they need to be screened for cervical cancer. (Table 2)

Table 1: Self-reported risk factors for cervical cancer among study subjects.

Risk factors	Variables	Frequency	%
Contraception	Condoms	62	35.0
	IUCD	49	27.7
	Combined pill	24	13.6
	Others	34	19.2
	None	8	4.5
Partners	Single	4	2.3
	Monogamous	150	84.7
	Polygamous	23	13.0
Age at menarche (years)	12-14 years	65	36.7
	Equal to or More than 15 years	112	63.3
Tobacco use	Yes	8	4.5
	No	169	95.5
Coital debut	Equal to or less than 14 years	14	7.9
	15-19 years	105	59.3
	Equal to or more than 20 years	58	32.8
Lifetime sex partners	1	84	47.5
	2-4	88	49.7
	Equal to or more than 5	5	2.8

Table 2: Participant's perception of cervical cancer risk.

Risk perception		Frequency	Percentage
Own risk	No opinion	80	45.2
	At risk	40	22.6
	No risk	57	32.2
Own need for screening	Yes	116	65.5
	No	61	34.5
Characteristics of persons at risk	No opinion	93	52.5
	All women	77	43.5
	Women with multiple partners	4	2.3
	No response	3	1.7

Of women perceiving themselves to be at risk of cancer of the cervix, 80% (32 out of 40) expressed the need for cervical cancer screening compared to 58.75% (47 out of 80) of those who had no opinion on own risk. These differences were found to be statistically significant (p=0.04) (Table 3).

Table 3: Correlates of perceived need for cervical cancer screening.

Correlates	Perceived need for cervical cancer screening				
	Variables	No	Yes	Total	P value
		N	N	N	
Perception of own risk	No opinion	33	47	80	0.04
	No risk	20	37	57	
	At risk	8	32	40	
	Total	61	116	177	
Age (years)	<=30	7	25	32	0.15
	>30	17	128	145	
	Total	24	153	177	
Contraceptive ever use	Yes	61	108	169	0.60
	No	3	5	8	
	Total	64	113	177	
Number of sex partners	1	33	51	84	0.19
	>=2	28	65	93	
	Total	61	116	177	

DISCUSSION

Determinants of uptake of cervical cancer screening services include age, education, contraception use and being married.[7] Review of literature has shown that reasons for not screening include perception of not being at risk and fear that abnormal test results mean existing cancer.[8,9] Women with low educational achievement, low awareness of the risk factors for cervical cancer, and who do not have support from their husbands may also have poor uptake of screening services.[10]

Women's perceptions of the screening services, awareness of the risk factors for the disease, having financial resources and support from the spouse are other significant factors in determining use of available facilities.[11] It was observed in our study that key barriers to access the screening services as perceived by study participants were fear of positive screening (or abnormal Pap smear) results, lack of awareness about the screening services and lack of finances to buy the services. Lack of awareness and low priority accorded women's health have been cited as some of the factors backing to the observed hesitancy of women to access screening services.[12]

Even where screening facilities exist, there are individual characteristics that determine whether a woman actually does access the services. Women who accept to screen tend to be younger (aged 30-39), married, had mostly been pregnant, better educated and had ever used contraception.[12-14] Our study subjects had similar characteristics but data was not collected on educational and socioeconomic status. Knowledge of risk factors for cervical cancer development has also been observed to be associated with better uptake of screening services.[15]

This study has several strengths. Firstly, we have studied perceptions of risk and barriers to cervical cancer screening by women; outcomes of which can be utilized to raise the acceptance of such screening. Secondly, in-depth analysis of this aspect has not been closely investigated by many experts in the field. The study has some limitations as well. Firstly, some may argue that the results obtained may not be generalized. I agree because the findings are only referable to women who accepted to be interviewed and eventually to undergo screening using the visual inspection approaches. It is likely that women refusing to participate in the screening were significantly different from those interviewed thus restricting the generalizability of the current study. Secondly, study population consisted of women seeking family planning services and therefore not the true representative of women in the reproductive age group. Thirdly, self-reported data is susceptible to social desirability bias and recall bias.

CONCLUSION

To conclude, the empirical evidence of the current study indicate that self-perception of not being at risk is documented to be associated with low uptake of screening. Concerned health education programs need to bring clearly to the end user the difference between precancerous lesions and invasive cervical cancer and the treatment options available for each of these clinical entities. This would reduce the frequency of the specious fear of abnormal cervical screening findings which was mentioned as a significant barrier to cervical cancer screening in this study.

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

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