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Original Research Article

Study on assessment of knowledge, attitude and practice towards prevention and screening of cervical cancer among Couples

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ABSTRACT

Background: Cervical cancer (CC) is caused by Human Papilloma Virus which is sexually transmitted. With the rise in its incidence, it is necessary to know if couple awareness is important to increase uptake of screening. Thus, this study was undertaken to analyze if knowledge, attitude and practice towards prevention and screening of CC in male partners has influence in female counterparts.

Methodology: Questionnaire based cross sectional study from August 2022 to August 2023, done in the department of Obstetrics and Gynecology, Sikkim Manipal Institute of Medical Sciences. 340 couples (680 participants), ≥18 years of age, attending the outpatient department who consented for the study were enrolled.

Results: Only 48% of the study population (142 couples) had heard about cervical cancer. There was no significant difference in the knowledge between males and females among couples who had heard about CC. However, there was significant difference in the female counterpart's knowledge when males had or lacked knowledge on CC ($p < 0.00001$). Assessment of preventive practice showed that only 17% women had done screening test and only 33% of couples used barrier contraception. More than 80% couples had a positive attitude towards screening and vaccination against the disease.

Conclusions: Though the population exhibited positive attitude towards CC prevention but the lack of knowledge led to less preventive practices. Male partner's knowledge also showed influence on awareness about CC among females. Hence, to increase screening uptake, educational programs should include couples rather than females.

Keywords: Knowledge, Attitude, Practice, Cervical cancer, Screening, Couples

INTRODUCTION

Cervical cancer (CC) is a preventable disease which is on the rise affecting mainly the low and middle-income countries (LMICs). Advancements in screening tests and techniques and the introduction of vaccination against human papilloma virus (HPV) which is responsible for the disease has promised to bring significant changes in the reduction of CC incidence. However, this reduction in incidence and mortality has been observed only in developed countries where the advanced screening tests,

treatment, and follow up care services are routinely available. Whereas, in LMICs which bears the main burden and deaths due to CC, progress in the effort of reducing incidence and mortality has been slow with rather an increase in incidence or mortality rates in the recent times. With almost 84% of new cases of CC and 88% of mortality occurring in resource limited countries there is a high global disparity as this incidence is two to four times higher than that in high resource countries.¹ Studies have shown that there is a very low participation of women for screening in LMICs. Apart from structural barriers, such

as difficult geographical locations, psychological and social factors such as stigma, community traditions and religious beliefs also pose a significant hindrance to the implementation of the screening and prevention education programs.² In addition, the deficiencies in the supportive attitude of male partners have been found to be an important issue for decrease in screening uptake.³ HPV is a sexually transmitted virus due to which men play a significant role in its transmission. WHO recommends involvement of males in CC preventive education programs, however, while educating the community about the disease men's role has been neglected. Several studies have shown that the decision of a woman to get a screening test done are significantly influenced by the opinion of their partners.^{4,5} In LMICs like India, where husband is still the decision maker of the family, the involvement of males is seen less in the screening and preventive education programs. Few studies have investigated the issue on attitude and knowledge of men on CC prevention in LMICs and these studies reveal poor knowledge. Owing to the crucial role a male partner plays in the prevention of CC, it is important to draw out the factors that would determine their support for partner screening. Drawing on these evaluations, our study aims in assessing the knowledge, attitude and practice about CC screening and preventive practices among couples attending obstetrics and gynaecology department of Central Referral Hospital. This study also strives to evaluate if males' knowledge influences their partners'.

Objectives

Objective was to analyze the knowledge, attitude and practices towards prevention and screening of Cervical Cancer among couples in Sikkim and to analyze if knowledge of cervical cancer in male partners has influence in their female counterparts.

METHODS

Study design and setting

Structured Questionnaire based cross sectional study from August 2022 to April 2023 was done in the department of Obstetrics and Gynaecology, Sikkim Manipal Institute of Medical Sciences.

Study population

340 couples (680 participants), ≥ 18 years of age, attending the outpatient department who consented for the study were enrolled for the study.

Procedure

After women consented for the study demographic details of the couples were filled by the investigator. Both the partners were given a predesigned, pretested, self-administered structured multiple responses questionnaires separately to be filled. Questionnaire was administered to

the couples by the investigator if they were illiterate or were unable to understand any term. The couples who had heard about CC were then further assessed for knowledge about CC. All couples were then made aware about cervical cancer and then assessment of their practices and attitude towards CC prevention and screening were done using the questionnaire.

RESULTS

Assessment of knowledge, attitude and preventive practices of CC was done in 340 couples attending the outpatient department of Obstetrics and Gynaecology at Central Referral Hospital, Sikkim Manipal Institute of Medical Sciences in Sikkim using a structured questionnaire. Majority of the population who participated in the study belonged to the upper middle to lower middle-class socioeconomic status (44% and 35% respectively) according to Modified Kuppuswamy scale 2022.

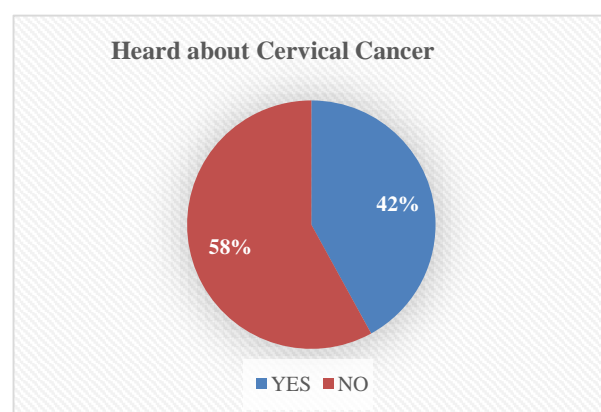


Figure 1: Couples who had heard about cervical cancer.

Among 340 couples (680 participants) only 142 couples (42%) had heard about cervical cancer (Figure 1). Further knowledge about cervical cancer was, therefore, assessed in these 142 couples only. The couples who had never heard about CC were 198 (58%) and they could not be further assessed for knowledge. Knowledge of couples who had heard about CC was further assessed. Both partner's knowledge was assessed regarding how common CC is, its cause, if it is sexually transmitted, role of barrier contraception and whether they had heard about screening. It was found that there was no significant difference in the knowledge in both male and female partners (Table 1). Further analysis was done to see if there was influence of male partner's knowledge on their female counterparts. It was noted that females who had knowledge of CC was significantly higher in the group where males had knowledge of CC. It was also noted that females who did not have knowledge about CC was significantly higher in the group where males lacked knowledge too (Table 2).

Practices that prevent cervical cancer were then assessed among all 340 couples (680 participants) taken for the study. Only 33% of couples was found to use barrier

contraception. Male partners, 83 % said they accompany their wives to visit the doctor if she complained of white discharge and 96% visit the doctor with their female partners for post coital bleeding (Figure 2).

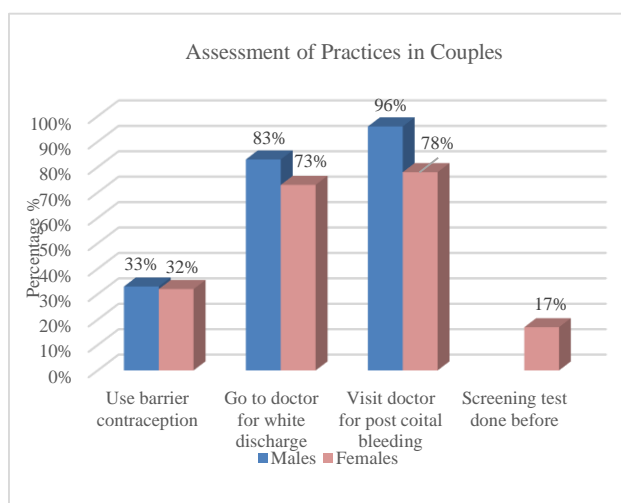


Figure 2: Assessment of practices in males and females (that account for prevention of cervical cancer).

Assessment of practice among females showed that 73 % would visit the doctor if she has/had white discharge and 78% would visit the doctor if she has/had post coital bleeding per vagina. It was noted that only 17% (57 out of 320) women had a screening test done for CC. (Figure 2). Irrespective of knowledge about cervical cancer all couples were made aware about the disease and its prevention.

Attitude among the couples was then assessed. It was found that >80% couples would want the screening test to be done, would inform their family members about the tests and would want their children to be vaccinated against the disease (Figure 3).

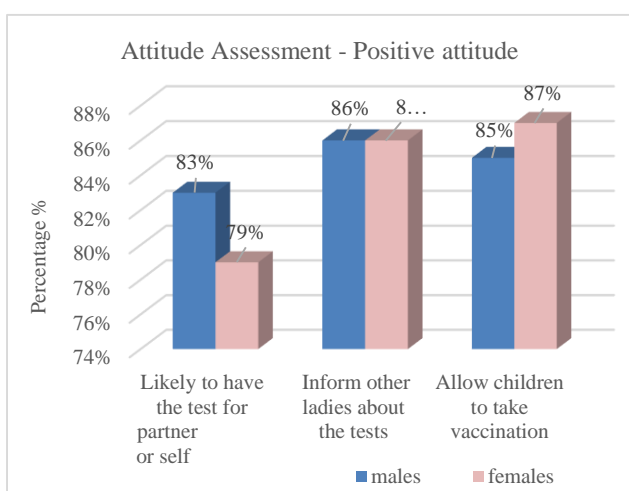


Figure 3: Assessment of attitude towards cervical cancer preventive practices in couples.

Table 1: Assessment of knowledge among couples who had heard about cervical cancer (n=142).

Questions	Males (%)	Females (%)	P value at 0.05 significance
How common is cervical cancer in women?			
Very common	39	50	0.322314
Rare/Uncommon	61	51	
I Don't know	42	41	
What causes cervical cancer?			
Infection	78	84	0.622507
Family cancer	20	15	
I Don't know	44	43	
Is the infection sexually transmitted?			
Yes	45	41	0.50124
No	43	52	
I Don't know	55	49	
Do you think male partners can contribute to cervical cancer?			
Yes	42	48	0.484434
No	35	39	
I Don't know	65	55	
Do you think using barrier contraception (condoms/Cervical caps/Jellies) can prevent infection that causes cervical cancer?			
Yes	60	58	0.340012
No	29	39	
I Don't know	53	45	
Have you heard about screening tests for cervical cancer?			
Yes	65	72	0.405825
No	77	70	
Have you heard about vaccination that prevents cervical cancer?			
Yes	58	66	0.313532
No	85	76	

DISCUSSION

Cervical cancer (CC) which is a preventable disease, is the most common female genital tract cancer in the world as stated by Globocan 2020 (6.5% new cases). It is also the second commonest cancer in women in India.⁶ In 2020, WHO launched the global cervical cancer elimination initiative to accelerate the elimination of cervical cancer, aiming to reduce the incidence threshold of 4 cases per 100,000 women-years in every country and thus narrow international disparities associated with the disease. WHO in order to accelerate the elimination of CC globally, proposes 90-70-90 target to be achieved by 2030: HPV Vaccination of 90% girls by 15 years of age; Screening with a high-performance test of 70% of women by the age of 35 and 45 years; and Management and treatment of 90% of women with pre cancer and 90% of women with invasive cancer.⁷ However, even with the introduction of highly sensitive and specific tests such as Nucleic acid amplification tests, DNA methylation and Protein

biomarkers, the screening uptake among women in developing countries is still very low. This is probably because women need to be motivated enough to get the screening tests done. Men have a crucial role to play in the prevention of cervical cancer as HPV, which is the causative agent for CC, is a sexually transmitted virus but less effort have been shown in the community to include men in educational programs and increase their awareness on cervical cancer.

A study was conducted by Kim et al in Korea where they interviewed 12 men to assess their awareness of women's cervical cancer.⁸ Their study reported that awareness level and knowledge about CC among men was low and suggested that plans need to be developed to involve and increase men's awareness and knowledge on CC prevention. Our study which involved both male and female partners showed that only 48% of the couples had heard about CC. There was no difference in the knowledge on risk factors and prevention in both the partners. However, it was noted that female partners of males who had knowledge of CC had good knowledge about the disease while female partners of males who lacked knowledge of CC also had less knowledge and it was statistically significant (p value <0.00001). Our study thus suggested that knowledge of CC in male partners significantly influence knowledge in females (Table 2). Rosser et al in 2014 conducted a cross sectional study among 110 men in Nyanza, Kenya to explore men's knowledge and attitudes about CC screening.⁹ Majority of men had heard of cervical cancer and screening in their study, however, knowledge about risk factors were low. Men did give strong interest in learning more in the future. It was concluded that it is important to analyze data on knowledge and attitudes of both partners and to evaluate screening records in order to develop best methods to involve men so that there is increase in screening uptake. A community based cross sectional questionnaire survey was conducted in 2018 by Ngwenya et al which intended to explore the knowledge, attitudes and practice on cervical cancer and screening among 202 men and 213 women aged 30-65 years residing in the regions of Swaziland.¹⁰

This study revealed that 53.5% of the women and 22.8% of men were able to answer only one sign of cervical cancer which points that almost half of the population in Swaziland still lacks the basic idea of cervical cancer. Only 5.2% of the women in the study had been screened by pap test in the past. Their study demonstrated a greater need for comprehensive education to eliminate misconceptions to improve screening and to involve men in the campaigns to eliminate barriers to screening services. Dsouza JP et al³ in 2022 evaluated 500 sexually active male's knowledge about the risk factors which explained men's intentions in order to support their partner's participation in screening of cervical cancer. Owing to very poor knowledge and awareness about cervical cancer and screening procedures, tended towards a negative attitude towards screening.

Utilization of cervical cancer screening services was very low in the studied population and only 5% of the studied population has undergone Pap smear screening during their life time.

In the current study, it was noted that only 17% (57 out of 320) of women had been screened for CC which is low. Though pap test is a very simple and low-cost screening test, uptake of this test is still very low in India. The proportion of women who have undergone screening for cervical cancer in Sikkim, India is only 0.6% according to Indian Council of Medical Research (ICMR).¹¹ Chawla et al conducted a study focusing on cervical cancer screening using knowledge, attitude and practice among health professionals in India.¹² This review concluded that health professionals have optimum knowledge of cervical cancer and knowledge of screening. Their attitude towards screening is also appropriate but the uptake of screening is very low (12.70%). In Western Uganda, focus group discussions were conducted by de Fouw et al involving men aged 25 to 60 years who were married and/or had daughters.¹³ Eleven focus group discussions were conducted with 67 men. Men were willing to support their wives for screening and their daughters for HPV vaccination after they were informed about cervical cancer. Limited knowledge among men about the risk factors and the prevention of HPV such as vaccination and screening can limit uptake of both services and the study suggested that active involvement of men in creating awareness to increase uptake and acceptance of prevention is a necessity of the community. A community based cross sectional study was conducted by Okafor in 2023 to assess the involvement of male in female partner's screening for breast and cervical cancers.¹⁴ Semi structured interviewer administered questionnaire were given to 254 men. It was reported that only 54.3% were involved in their partner's screening. Male involvement was seen to be significantly associated with screening of female cancers. Thus, the study concluded that community-based programmes should be implemented to increase the involvement of males. The assessment of knowledge on CC was found to be very low in our study, where 58% (198 couples) of the study population had never heard about cervical cancer and only 17% women had undergone screening with Pap test before. Among 340 couples included in the study only 33% used barrier contraception but their other practices such as visiting doctor for foul smelling discharge and post coital bleeding was 73%-96%. After assessing the knowledge in all the couples in our study, all participants were then made aware of the disease, its risk factors and preventive methods. Assessment of attitude was then done which showed that more than 80 % couples wanted to take the screening test, wanted to inform their family members about the screening test and would want their children to be vaccinated against the disease which was a reflection of good attitude towards cervical cancer preventive techniques (Figure 2). In a study conducted by George only 5% of the study population has undergone Pap smear screening during their life time.¹⁵

Table 2: Knowledge of female partners of males with and without knowledge of CC.

Parameters	Females who knew about CC	Females who did not know about CC	Row totals	P value at 0.05 significance
Males who had knowledge of CC (N=159)	142	17	159	<0.00001
Males who did not have knowledge of CC (N=181)	74	107	181	
Column Totals	216	124	340 (Grand Total)	

Lack of awareness (25.06%), lack of adequate health care facilities (22.67%), lack of symptoms (11.69%), not feeling at risk (11.93%) and social stigma (9.55%) were identified as important factors affecting the uptake of cervical cancer screening services. There are no awareness programs in our community, hence, majority of the women in LMICs are not aware of this preventive disease and the screening tests that are available for early detection and treatment. Women who have heard of the test are filled with anxiety and fear as they think that screen test positive means they have cancer, thus reducing its uptake. Awareness programs involving media are, therefore, a must to remove this stigma towards screening tests and thus contribute significantly to cervical cancer rate reduction. A study was conducted in 2016 to assess the knowledge, attitudes and practices of cervical cancer prevention among Zambian women and men.¹⁶ It was reported that 36.8% population had heard of cervical cancer, 20.7% of women had undergone screening and 6.7% had vaccinated their daughters. There was a strong association between having awareness and practicing screening (OD-20.5, 95% CI -9.214, 45.516) and vaccination (OD-5.1, 95% CI -2.473, 10.423).

Though we talk about women empowerment, our society is still male dominated, especially in low- and middle-income countries (LMICs). Men are still responsible for granting permissions and making health related decisions for their partners. Hence, educational programs on screening for cervical cancer should also focus on male education as cervical cancer is mainly prevalent in these LMICs. Many studies have been reported in literature on the assessment of knowledge, attitude and practice about cervical cancer and its prevention, however, there are no studies to evaluate whether male's knowledge have influence on their female partners. Our study has demonstrated that there is significant influence of male partners knowledge on their female counterparts. This area needs to be further evaluated with a larger study population so that recommendations can be made and applied in order to increase screening uptake especially in LMICs.

CONCLUSION

Though the population exhibited positive attitude towards CC prevention but the lack of knowledge led to less preventive practices. Male partner's knowledge showed significant influence on awareness about CC among

females. In low- and middle-income countries where males are still responsible for making important decisions in the family it is important to include males in educational programs to increase screening uptake. Only then can the "90-70-90" target set by World Health Organization be achieved by 2030.

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