

RESEARCH ARTICLE

Awareness of Cervical Cancer among Couples in a Slum Area of Mumbai

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Abstract

To assess the awareness of cervical cancer among couples, data were collected from two urban slums community in Mumbai. A total of 1958 married women aged from 18 to 49 and their husbands were selected using simple random sampling. Women (37.7%) were significantly more aware of cervical cancer than husbands (8.7%). A slight agreement (kappa statistics=0.16) was observed between husbands and wives on awareness of cervical cancer. Significantly higher percentages of wives were aware of pap smear test than husbands. Overall, awareness of cervical cancer and pap smear test among couples is low. There is need to educate and motivate both of them to participate in cervical cancer screening program.

Keywords: Concordance couple - discordant - pap smear test - Mumbai

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Introduction

Globally, cervical cancer is one of the most common cancers among women (WHO, 2008). A per National Cancer Registry, crude incidence and mortality rate due to cervical cancer in India is 134 per 1,000 and 74 per 1,000 women respectively. Age adjusted incidence rate of cervical cancer reported for six cities are - Bangalore 18.1, Bhopal 18.7, Chennai 24.8, Delhi 17.6 and Mumbai 13.0 per 100,000 (Indian Council of Medical Research, 2006). The incidence of cervical cancer begins to rise among Indian women in their early 30s and peaks at ages 40-50 years. Worldwide, an estimated 530,232 women develop cervical cancer and 275,008 women die due to this disease (GLOBOCAN, 2008).

Successful treatment depends on early diagnosis of cervical cancer (O'Malley et al., 2000). Over the past 20 years cervical cancer screening with the Pap smear test has resulted in a significant reduction in the mortality due to cervical cancer which is the leading cancer related cause of death among women worldwide. Although there are many techniques available and each technique has its own advantages and disadvantages. Currently, the Pap smear screening for the early detection of pre-cancerous lesions is the only cost-effective and well-established technique available and used all over the world. It has additional benefit in detection of some common sexually transmitted infections in single smear (Mali et al., 2004). However, it was found that 50% of women diagnosed with cervical cancer have never undergone a Pap test (Saslow et al., 2012) and seek health care in advanced

stage of cervical cancer in India (Nene et al., 2007). The reason may be either because of lack of access to proper treatment including screening facility (Basu et al., 2006) or women were less likely to be screened when they did not understand the importance of recommendations (Eaker et al., 2001), lack of awareness of the benefits of the screening test, considering oneself not at risk, fear of getting diagnosed as cancer and embarrassment (Basu et al., 2006; Nene et al., 2007). Further, cervical cancer is often linked with sexually transmitted infections and sexual relationships outside marriage. These are not culturally accepted in India, as a result, women refused to be screened out of fear of the potential social stigma. Studies conducted in different setting in India suggest that women were aware of risk factors like sexual activity at an early age, extramarital sexual relationships associated with cervical cancer (Joy et al., 2011). In India 50 percent women get married before attaining 18 years of age and hence exposure to early sexual activities put them at risk of cervical cancer. In addition, women were often opposed by men from accessing cervical cancer screening services (Lazcono et al., 1999). Cultural factors also affect wives ability to make decision since husbands have to be consulted or informed before seeking any treatment (Bradley et al., 2006). Encouraging men to support women's participation in cervical cancer prevention program (Nene et al., 2007) may reduce the barrier. Therefore, it may be important to enhance awareness of cervical cancer among both husbands and wives for early detection of cervical cancer. However, there is dearth of literature with respect to couples' awareness regarding

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cervical cancer. The present paper explores the awareness of cervical cancer among couples which will be helpful in early diagnosis of cervical cancer prevention services.

Materials and Methods

Two maternity homes, Savitribai Phule Maternity Home, Bhandup and Dr Babasaheb Ambedkar Maternity Home, Vikhroli, of Municipal Corporation of Greater Mumbai (MCGM), Mumbai were selected for the study. Simple Random Sampling was used to select married women aged 18 to 49 years and their husbands, intended to reside in the defined community for next three years. A total of 1958 eligible couples were interviewed face-to-face using structured questionnaire during October 2010 to February 2011. Both husband and wife were asked about whether they had heard of cervical cancer, if yes then whether they had heard of Pap Smear test. The answers were recorded as ‘Yes’ and ‘No’. The data were entered and husbands and wives were matched using unique identification number.

Statistical analysis

Bivariate analyses were conducted to evaluate the degree of agreement between husbands and wives on awareness of cervical cancer. A 2X2 table shows the concordance and discordance awareness of cervical cancer between wives and husbands. Chi-square test was carried out to see the difference in proportion. Kappa statistics was applied to see the percentage agreement in reporting of awareness of cervical cancer within couples was a result of chance alone. Value of Kappa range from 0.01-0.20 indicated as ‘Slight agreement’, 0.21-0.40 as ‘Fair agreement’, 0.41-0.60 as ‘Moderate agreement’, 0.61 to 0.80 as ‘Substantial agreement’, and 0.81-0.99 as ‘Almost perfect agreement’. Higher values indicate almost perfect agreement beyond chance (Anthony and Joanne, 2005)

Results

Table 1 presents the demographic characteristics of husbands and wives. Majority of husbands were aged more than 35 years whereas more than half (55.3%) of wives were less than 35 years old. Around 3.1% husbands and 14.7% wives were illiterate respectively. Approximately,

Table 1. Percentage of Husbands and Wives Heard of Pap Smear Test among Those Who were Aware of Cervical Cancer

Socio demographic characteristics	Husband		Wife	
	N	(%)	N	(%)
Age	<35 years	657 (33.6)	1082 (55.3)	
	≥35 years	1301 (66.4)	876 (44.7)	
Education	Illiterate	60 (3.0)	287 (14.6)	
	Primary	344 (17.6)	563 (28.8)	
	Secondary	912 (46.6)	726 (37.1)	
	Higher secondary & above	642 (32.8)	382 (19.5)	
Occupation	Not working	0 (0.0)	1736 (88.7)	
	Working	1958 (100.0)	222 (11.3)	

Table 2. Percentage of Couples Aware of Cervical Cancer

Husband aware of cervical cancer	Wife aware of cervical cancer N(%)		Total
	Yes	NO	
Yes	124 (6.3)	43 (2.2)	167 (8.5)
No	615 (31.4)	1176 (60.1)	1791 (91.5)
Total	739 (37.7)	1219 (62.3)	1958 (100.0)

*Kappa statistics (K)=0.16, p-value=0.0001

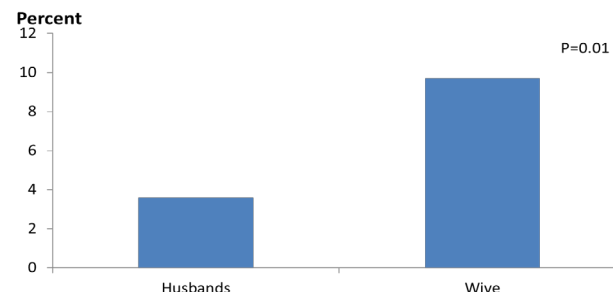


Figure 1. Percentage of Husbands and Wives Heard of Pap Smear Test among Those Who Had Heard of Cervical Cancer

88.7% women were housewives (non-working).

Percentage of couples aware of cervical cancer is presented in Table 2. Wives (37.7%) were significantly more aware of cervical cancer than husbands (8.5%). There was a large gap (29.2%) in awareness of cervical cancer between wives and husbands. A slight agreement (k=0.16) was observed between husbands and wives on awareness of cervical cancer. Only 6.3% couples were aware of cervical cancer and 33.6% were discordant couples.

Awareness of pap smear test among those who had heard of cervical cancer is shown in Figure 1. Among those who had heard of cervical cancer 3.6% husbands and 9.7% wives had heard of pap smear test. The difference in awareness between husband and wife was found to be significant (p=0.01). It was also found that only 4 couples were aware of pap smear test and 96 couples were not aware of pap smear test.

Discussion

The present study tried to present the awareness of husbands and wives on cervical cancer and pap smear. Approximately 37.7% women were aware of cervical cancer. Roy and Tang (2008) conducted a hospital based study among women attending department of Obstetric and Gynaecology, Kolkata showed that awareness of cervical cancer was 16%. In another study carried out in a community setting from female students of Delhi and Mangalore revealed that 66% female students were aware of cervix cancer (Joy et al., 2011). The present study showed that 9.7% wives had heard of pap smear test. In other study, 11% of the female college students aged 17-24 years (Saha et al., 2010) and 5% women (Roy and Tang, 2008) had heard of the Pap smear test.

Most of the studies investigated awareness of cervical cancer among women in hospital based whereas, the present community based study incorporated the

awareness on cervical cancer and Pap smear test of husbands their also. Promotion and education is needed to prevent incidence of cervical cancer (Rahangdale, 2012). Present study showed that the awareness of cervical cancer and pap smear test among couples is low and a significant gap in awareness was also observed. Since husbands are the decision makers in wives' health care (International Institute for Population Studies, 2007), their positive emotional support (Bingham et al., 2003) will encourage wives for early diagnosis of cervical cancer screening program.

In conclusion, the awareness of cervical cancer and pap smear test among husbands and wives is low. There is need to educate and motivate both of them to protect themselves against this dreadful diseases.

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References

- Anthony JV, Joanne MG (2005). Understanding interobserver agreement: the kappa statistic. *Family Med*, **37**, 360-3.
- Basu P, Sarkar S, Mukherjee S, et al (2006). Women's perceptions and social barriers determine compliance to cervical screening: results from a population based study in India. *Cancer Detect Prev*, **30**, 369-74.
- Bingham A, Bishop A, Coffey P, et al (2003). Factors affecting utilization of cervical cancer prevention services. *Salud Publica Mex*, **45**, 408-16.
- Bradley J, Coffey P, Arrossi S, et al (2006). Women's perspectives on cervical screening and treatment in developing countries: experiences with new technologies and service delivery strategies. *Women Hlth*, **43**, 103-21.
- Eaker S, Adami HO, Sparen P (2001). Attitudes to screening for cervical cancer: a population-based study in Sweden. *Cancer Causes Control*, **12**, 519-28.
- GLOBOCAN (2008). Cancer incidence, mortality and prevalence worldwide. Available at: <http://globocan.iarc.fr/factsheet.asp>.
- Indian Council of Medical Research (2006). National Cancer Registry Program. Consolidated Report of Population Based Cancer Registries 2001-2004. Available at: http://www.icmr.nic.in/ncrp/report_pop_2001-04/Initial%20Pages.pdf p-65.
- International Institute for Population Sciences (IIPS) and Macro International (2007). National Family Health Survey (NFHS-3), 2005-06: India: Volume I. Mumbai: IIPS.
- Joy T, Sathian B, Bhattarail C, Chacko J (2011). Awareness of cervix cancer risk factors in educated youth: a cross-sectional, questionnaire based survey in India, Nepal, and Sri Lanka. *Asian Pac J Cancer Prev*, **12**, 1707-12.
- Lazcono Lazcano-Ponce EC, Castro R, Allen B, et al (1999). Barriers to early detection of cervical-uterine cancer in Mexico. *J Women's Hlth*, **8**, 399-408.
- Mali BN, Hazari KT, Joshi JV (2004). Benefits of the Conventional Papanicolaou smear. *Acta Cytol*, **48**, 466-7.
- Nene B, Jayant K, Arrossi S, et al (2007). Determinants of women's participation in cervical cancer screening trial,

- Maharashtra, India. *Bulletin of the World Hlth Organization*, **85**, 264-72.
- O'Malley DM, Munkarah AR, Morris RT, et al (2001). Reasons for failure to seek cervical cancer screening in non-indigent population. Abstract 835, 37th Annual Meeting of The American Society of Clinical Oncology, May 12-15; San Fransico, California.
- Rahangdale L (2012). Pap tests every 3-5 years what happens to the annual examination? *Obstetrics & Gynecology*, **120**, 9-11.
- Roy B, Tang TS (2008). Cervical cancer screening in Kolkata, India: beliefs and predictors of cervical cancer screening among women attending a women's health clinic in Kolkata, India. *J Cancer Educ*, **23**, 253-9.
- Saha A, Chaudhury AN, Bhowmik P, Chatterjee R (2010). Awareness of cervical cancer among female students of premier colleges in Kolkata, India. *Asian Pac J Cancer Prev*, **11**, 1085-90.
- Saslow D, Solomon D, Lawson HW, et al (2012) American cancer society, American society for colposcopy and cervical pathology, and American society for clinical pathology screening guidelines for the prevention and early detection of cervical cancer. *CA Cancer J Clin*, **62**, 147-72.
- World Health Organisation (2008). The Global Burden of Disease: 2004 Update. Geneva, World Health Organization.