



A STUDY OF SAFE SEX PRACTICES REGARDING HIV/AIDS IN THE URBAN AND RURAL FIELD PRACTICE AREA OF DEPARTMENT OF COMMUNITY MEDICINE, MMIMSR, MULLANA, AMBALA (HARYANA)

Community Medicine

Kshitij Choudhary	Assistant Professor, Community Medicine, MMMCH, Kumarhatti, Solan, Himachal Pradesh
Anshu Mittal	Professor, Community Medicine, MMIMSR, Mullana, Ambala, Haryana
Anu Bhardwaj	Professor, Community Medicine, MMIMSR, Mullana, Ambala, Haryana
Tanoja Sabni*	Demonstrator, Community Medicine, MMMCH, Kumarhatti, Solan, Himachal Pradesh *Corresponding Author

KEYWORDS

Introduction and Background

Discovered in 1980s, HIV/AIDS is today found all over world and is well showing its fangs in the present century, too. Despite all the advances, people infected with HIV and those dying due to it are still high. Since 1997, the year in which annual new infections peaked to 3.2 million cases globally, the number of new infections has fallen to 2.3 million in 2012¹. In **India**, available evidence on HIV prevalence shows signs of stabilization of HIV epidemic at national level. In 2012, there were 20.89 lakhs people living with it, with an estimated prevalence of 0.27 percent².

Since there is neither a cure nor any vaccine available for HIV as yet, the best option to control this scourge is prevention. The risk of acquiring STIs including HIV, is increased by unsafe sexual behaviours. Efficacy of sexual route of transmission is < 1% but approximately 90% HIV positive cases have got infection through sexual route. Further presence of STIs increases the chances of transmission of HIV. Hence it is very important to practice safe sex to avoid HIV³.

Unsafe sexual behaviours such as irregular use of condoms and having multiple sexual partners present a persistent challenge in the fight against the spread of HIV infection⁴. Condoms offer good protection against HIV and other STIs. Health educators, parents and media in general could benefit from better understanding of how people perceive condom promotion messages⁵.

HIV/AIDS awareness programmes need to be more focused, in order to promote safer sexual practices. In such awareness programmes, the mainstay has to be on consistent usage of condoms. Conduction of intensive education campaigns to change attitudes of men towards high risk sexual behaviour and promotion of the image of condom as a single sign of caring for health is recommended⁶.

In Haryana, an estimated 42000 HIV+ cases and 2658 AIDS cases were reported till 2013, with only 1 AIDS case reported from the district of Ambala, the area in which this study has been conducted⁷. In order to maintain the low prevalence, strengthening of outreach programmes focusing on safe sexual practices is very important.

Therefore, the present study was undertaken to:

- I. assess the status of safe sexual practices regarding HIV/AIDS among the population residing in the urban and rural field practice area of the department of Community Medicine and
- II. to study the socio-demographic predictors of the behavior regarding safe sex practices.

METHODOLOGY

A community based, cross-sectional study was conducted from January to December 2015, in the urban and rural field practice area of department of community medicine, MMIMSR Mullana, Ambala (Haryana).

To calculate the sample size, a prevalence of 30% risk practices was taken, as concluded by Mansoor and Fungladda⁸ (2008). Applying the statistical formula for sample size:

$$n = 4pq/e^2 \times 100$$

where, "n" was the sample size
"p" was the prevalence

"q" was 100-p
and "e" was the error (taken as 3% absolute figure)

Sample size came out to be 933. Rounding it off, the selected sample size for the study was taken as 1000. Out of this 500 were from urban and 500 from rural area.

The urban field practice area covers a population of 32,186 and there are 5722 houses. Therefore, every 10th house was visited and any one eligible person from every house was interviewed about HIV/AIDS.

The rural field practice area covers a population of 1,36,815 residing in 84 villages. Out of these villages 3 villages were randomly chosen. In these villages systematic random sampling was used to select 500 houses. In each house only one eligible person was interviewed.

In both the areas if in any house a family member was not available at the time of visit, two additional visits were made. However, if after three visits no family member was available then that house was excluded from the study and the very next house in the list was approached.

Besides, people less than 15 years of age and unwilling to participate were also respectfully excluded from the study.

The participants were explained about the purpose of study and ensured of complete confidentiality. They were assessed for their safe sexual practices regarding HIV/AIDS using a self-designed, pre-tested and semi-structured questionnaire. The questionnaire comprised of two sections.

Section one dealt with the socio-demographic profile of the participants. This included age, sex, religion, education level, occupation and income etc.

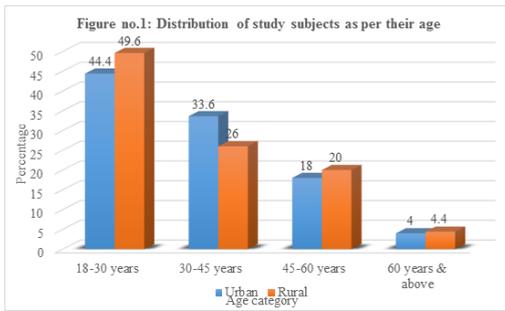
Section two included questions on practices related to sex like pre/extra marital sex, sex with multiple partners, visiting commercial sex workers etc. There were also questions related to the use and experience of condoms.

RESULTS

Most of the subjects (47%) were from the age group 18 – 30 years (Figure no. 1). 58.4% of the study participants were males, 59.6% in the urban area and 57.2% in the rural area. Religion wise, maximum number of the participants (78.4%) were Hindus. Nearly two-thirds (66.8%) of the participants were educated up to senior secondary class or higher, while 10.8% were illiterate. Occupation wise, most of the subjects (41.2%) were either students or housewives or retired. 88% of the study subjects belonged to Class I, as per 2014 B.G. Prasad socio-economic classification. As per marital status, 60.2% of the participants were married. Talking of type of family structure in the socio-demographics of the study subjects, in the urban area most of them belonged to nuclear type (81.2%), while in rural area they belonged to joint type (59.6%).

26% of the study subjects had pre/extra marital sex and 8.6% had multiple sex partners. All the respondents who were having sex with CSWs frequently (1.6%), were from the urban areas. 0.6% of the respondents said they were homosexuals, while 6.2% said they were bisexuals (Table no.1).

Table no. 1: Sexual practices of the study subjects



Questions asked	Urban (N = 500)	Rural (N = 500)	Total (N = 1000)
Do you ever had Pre/Extra marital sex?	Yes 128 (25.6%)	132 (26.4%)	260 (26%)
	No 372 (74.4%)	368 (73.6%)	740 (74%)
Do you have Multiple Sex partners?	Yes 40 (8%)	46 (9.2%)	86 (8.6%)
	No 460 (92%)	454 (90.8%)	914 (91.4%)
Do you have sex with CSWs frequently?	Yes 16 (3.2%)	0	16 (1.6%)
	No 484 (96.8%)	500 (100%)	984 (98.4%)
Do you have sex with CSWs occasionally?	Yes 32 (6.4%)	58 (11.6%)	90 (9%)
	No 468 (93.6%)	442 (88.4%)	910 (91%)
Do you never have sex with CSWs?	Yes 450 (90%)	440 (88%)	890 (89%)
	No 50 (10%)	60 (12%)	110 (11%)
Do you have sex with person of your own sex?	Yes 58 (11.6%)	90 (18%)	148 (14.8%)
	No 442 (88.4%)	410 (82%)	852 (85.2%)
Are you Heterosexual by sexual orientation?	Yes 466 (93.2%)	458 (91.6%)	924 (92.4%)
	No 34 (6.8%)	42 (8.4%)	76 (7.6%)
Are you Homosexual by sexual orientation?	Yes 3 (0.6%)	10 (2%)	13 (1.3%)
	No 493 (98.6%)	492 (98.4%)	985 (98.5%)
Are you Bisexual?	Yes 31 (6.2%)	32 (6.4%)	63 (6.3%)
	No 469 (93.8%)	468 (93.6%)	937 (93.7%)

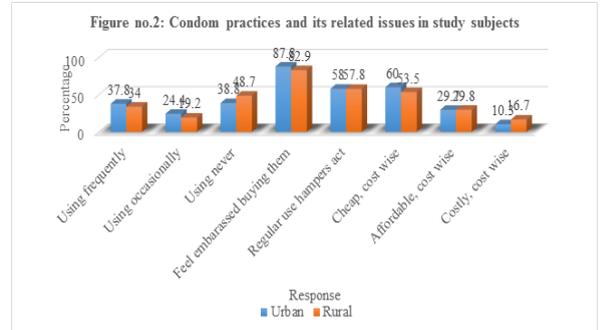
The practice of having pre/extra marital sex was higher in Sikh and Muslim males of lower age, and high education ($p < .05$), whereas socio-economic status showed no significant relation ($p > .05$) (Table no.2).

Table no.2: Behavioural practices of the study subjects as per their socio-demographic profile

Socio-demographic variables	Do you ever have had pre/extra marital sex partners?			p-value	
	Yes	No	Total (1000)		
Age group	18-30 years	178 (68.5%)	292 (39.5%)	470 (47%)	<.001
	30-45 years	54 (20.8%)	244 (33%)	298 (29.8%)	
	45-60 years	26 (10%)	164 (22.2%)	190 (19%)	
	60 years & above	2 (0.8%)	40 (5.4%)	42 (4.2%)	
Sex	Male	246 (94.6%)	338 (45.7%)	584 (58.4%)	<.001
	Female	14 (5.4%)	402 (54.3%)	416 (41.6%)	
Education	Illiterate	8 (3.1%)	100 (13.5%)	108 (10.8%)	<.001
	Primary	8 (3.1%)	56 (7.6%)	64 (6.4%)	
	Middle	22 (8.5%)	46 (6.2%)	68 (6.8%)	
	Matric	34 (13.1%)	58 (7.8%)	92 (9.2%)	
	Senior secondary	56 (21.5%)	180 (24.3%)	236 (23.6%)	
	Diploma	30 (11.5%)	92 (12.4%)	122 (12.2%)	
	Graduate	84 (32.3%)	162 (21.9%)	246 (24.6%)	
	Post-graduate	18 (6.9%)	46 (6.2%)	64 (6.4%)	
Socio-economic class	I	222 (85.4%)	658 (88.9%)	880 (88%)	.278
	II	30 (11.5%)	66 (8.9%)	96 (9.6%)	
	III	8 (3.1%)	12 (1.6%)	20 (2%)	
	IV	0	2 (0.3%)	2 (0.2%)	
	V	0	2 (0.3%)	2 (0.2%)	

Religion	Hindu	190 (73.1%)	590 (79.9%)	780 (78.2%)	.029
	Sikh	30 (11.5%)	64 (8.7%)	94 (9.4%)	
	Muslim	28 (10.8%)	56 (7.6%)	84 (8.4%)	
	Christian	10 (3.8%)	28 (3.8%)	38 (3.8%)	

43.6% of the participants had never used condoms. 57.1% found condoms to be cheap, cost wise. 85.6% believed they would be embarrassed buying them, while 57.9% felt that condom usage would hamper the sexual act (Figure no.2).



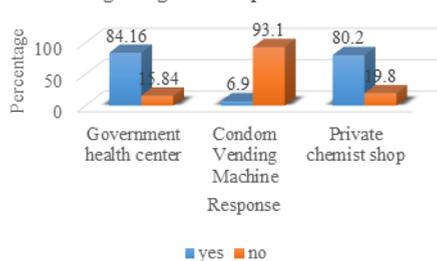
This behavioural practice regarding not using a condom was significantly associated ($p < .001$) with higher age group Muslims from lower socio-economic status and having low education whereas not with sex ($p = 0.809$) of the study subjects (Table no 3).

Table no.3: Behavioural practices regarding condom usage among the study subjects as per their socio-demographic profile

Socio-demographic variables	Not using condoms			p-value	
	Yes	No	Total (790)		
Age group	18-30 years	74 (21.6%)	196 (44.3%)	270 (34.4%)	<.001
	30-45 years	92 (26.9%)	192 (43.4%)	284 (36.2%)	
	45-60 years	134 (39.2%)	54 (12.2%)	188 (24%)	
	60 years & above	42 (12.3%)	0	42 (5.4%)	
Sex	Male	220 (64.3%)	288 (65.2%)	508 (64.8%)	.809
	Female	122 (35.7%)	154 (34.8%)	276 (35.2%)	
Education	Illiterate	96 (28.1%)	2 (0.5%)	98 (12.5%)	<.001
	Primary	44 (12.9%)	10 (2.3%)	54 (6.9%)	
	Middle	52 (15.2%)	16 (3.6%)	68 (8.7%)	
	Matric	42 (12.3%)	44 (10%)	86 (11%)	
	Senior secondary	38 (11.1%)	76 (17.2%)	114 (14.5%)	
	Diploma	26 (7.6%)	68 (15.4%)	94 (12%)	
Socio-economic class	I	260 (76%)	422 (95.5%)	682 (87%)	<.001
	II	64 (18.7%)	18 (4.1%)	82 (10.5%)	
	III	16 (4.7%)	2 (0.5%)	18 (2.3%)	
	IV	0	0	0	
	V	2 (0.6%)	0	2 (0.3%)	
Religion	Hindu	248 (72.5%)	354 (80.5%)	602 (77%)	<.001
	Sikh	28 (8.2%)	46 (10.5%)	74 (9.5%)	
	Muslim	58 (17%)	14 (3.2%)	72 (9.2%)	
	Christian	6 (1.8%)	26 (5.9%)	32 (4.1%)	

Private chemist shops was the most reported source of condom procurement in urban areas (96%), while it was Government Health Centers in rural areas (84.16%) (Figure no.3).

Figure no.3: Practices of RURAL study subjects regarding condom procurement



All the urban and 99.2% of the rural participants had heard about red light areas and a total of 7.4% were visiting them. But half of such visitors, were not using condom during sex with commercial sex workers.

DISCUSSION

In the present study, 26% of the total study respondents admitted of having had pre/extra marital sex partners. Thanavanh et al⁹ (2013) in their knowledge, attitude and practice study in Laos people's democratic republic found 31.3% high school students with a history of sexual intercourse.

8.6% of the study subjects conceded that they had multiple sexual partners. Odusanya and Alakija¹⁰ (2004) in their study amongst students of a Nigerian school of community health revealed that 9% had multiple sexual partners. Ma et al¹¹ (2006) in their cross-sectional study in Chinese university students found 9.7% participants revealing to have had ever sex with CSWs, similar to the number of subjects in our study (10.6%).

When asked if they have had sex with person of their own sex, 14.8% study subjects said yes. Almost a twin result of 14.9% was got by Thanavanh et al⁹ (2013), to boot.

In our study, 35.9% of the subjects said they were using condoms frequently. 39.24% participants said the same as per study on Maharashtra truck drivers by Patil and Dixit¹² (2012) and in the Durojaiye Lagos study¹³ (2011) among tertiary education students, 30% sexually active respondents were always using condoms. This was followed by 21.8% study subjects using the protection occasionally. In Thanavanah et al⁹ (2013) KAP study regarding HIV/AIDS in Laos people's democratic republic 26.3% subjects said they were using them non-consistently. Also on the other end, were a considerable 43.6% subjects in our study, who said they never used condoms. The corresponding figure was 35% in Ma et al¹¹ (2006) study on Chinese university students.

57.9% of our participants had the complaint that condom usage hampers their sexual act. Kouta et al¹⁴ (2013) found 66.7% college/university students had complained the same.

Private chemist shops were the most quoted (88.9%) condom procurement source by our study subjects, followed by government health agencies (42.47%) and condom vending machines (9.7%). Pharmacy was also reported as the main source of condom procurement (56.7%) among Khartoum tea sellers' women as found by Sidig et al¹⁵ (2009)

99.2% of the study subjects had ever heard about red light areas but only 7.4% visited there and further among them 47.4% were using condom during sex with their partners. Singh et al¹⁶ (2012) in their Bareilly sexual behavior study among truckers found 58.7% subjects had visited red light areas and 83.9% were using condoms there. The long time spells for which truckers stay away from their spouses could explain their high visits to prostitutes. International, national and local level efforts of focusing on this high risk group of truckers, could explain their higher usage of condoms.

CONCLUSION

It was found that overall behaviour of the study subjects regarding safe sex practices towards HIV/AIDS is not at all satisfactory and a lot

needs to be done.

RECOMMENDATIONS

- Illiterate people should be made aware about safe sex practices, especially in rural areas.
- Knowledge should be imparted especially to lower socio-economic strata about various aspects safe sex practices.
- Health education activities regarding prevention of HIV/AIDS should focus on safe sex and condom usage. Younger adolescents should specifically be targeted for education and counselling regarding safe sex.

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