

KNOWLEDGE AND ATTITUDES ABOUT  
CONDOM USE AMONG COLLEGE STUDENTS  
IN URBAN INDIA

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This study examines awareness of HIV/AIDS and perceptions about condom use among college students in four cities in Southern and Western India. Correct and consistent condom use is said to reduce the risk of sexual transmission of the AIDS virus and other infections by almost 99 per cent. Since a cure for the HIV infection or even a vaccine against it are yet to be developed, condom use remains one of the best lines of defence against contracting the virus. Condom promotion therefore forms a major part of AIDS prevention campaigns in all areas. However, though such campaigns advocate condom use and monitor usage rates among populations, they mostly ignore awareness of correct and consistent use, without which the efficacy of condoms in preventing disease and pregnancy drops greatly. The study also contrasts men's and women's perceptions of the availability and acceptability of condoms, addressing an issue at the forefront of condom promotion.

The World Health Organization has designated India as a country where HIV/AIDS prevalence and transmission is reaching severe epidemic proportions. The first HIV case was reported in India in 1986. By 1995 the number had grown to 18,291 with 1139 AIDS cases<sup>1</sup>. According to the National AIDS Control Organization of India (NACO) set up by the Ministry of Health and Family Welfare to monitor the spread of

HIV/AIDS in the country, the sero-positivity rate in India in 1995 was 7.29 per thousand (calculated from over 2.5 million blood samples). A moderate estimate shows that if the transmission of HIV continues at this pace, by the year 2000 about 5 million persons in India would be infected with HIV, with almost 1 million AIDS cases<sup>2</sup>.

As elsewhere, sexual transmission is the major pathway by which AIDS is spreading in India<sup>3</sup>. This makes the issue of awareness about correct and consistent condom use important, along with understanding how men and women may have differing perceptions of and access to condoms. Currently, condom use in India is very low and is mainly for family planning. According to the 1991 National Family Health Survey (NFHS), carried out in 14 major Indian states, condom use varies between only 1 and 3 per cent of married couples. In Maharashtra and Tamil Nadu respectively, 19 and 23 per cent of ever-married women had heard of the disease called "AIDS". Of these, only 32 per cent and 15 per cent respectively knew of condoms as a method of AIDS prevention<sup>4</sup>.

While efforts are under way by the government and NGOs in India to increase condom popularity for family planning as well as STD prevention, little attention is paid to raising awareness of correct and consistent condom use. It is assumed that knowledge of the existence and importance of condoms will automatically lead to correct and consistent use, which may not necessarily be the case. Further, many aspects of gender differences in condom use or perceptions are under-researched. Researchers call for further evidence whether women differ from men in their access to condoms or the desire to use them<sup>5</sup>.

### Setting and subjects of the study

In most developing countries, HIV/AIDS has been first reported in port regions, and then spreads quickly through the hinterland particularly when labour migration is common. In India too, the first AIDS case was noted in 1986 in Tamil Nadu state on the eastern coast of South India, after which the infection appeared rapidly in other coastal states of Kerala, Karnataka (south-western coast) and Maharashtra (western coast), where several ports are located and labor migration is a critical component of the economy. Currently, Tamil Nadu and Maharashtra have the highest incidence of the HIV infection in India, followed by the North-Eastern states (where illicit drug production and use are widespread), Delhi, Kerala and Karnataka<sup>6</sup>.

This study includes the major port cities of Madras in Tamil Nadu; Mangalore in Karnataka; and Bombay in Maharashtra. The city of Bangalore located in the interior of Karnataka is also covered. Bangalore has developed, during the last decade, into a prominent multinational manufacturing center due to the national economic restructuring policies. This has resulted in booming population growth, increased national and international contact, and sociocultural change in what was previously a non-industrial, conservative Southern Indian town.

College students form the subject of this study in an attempt to move away from the focus by most prior HIV/AIDS behavioural studies in developing regions, on pre-determined "risk groups" such as sex

workers or truck drivers. One result of this strategy was to further stigmatize and marginalize these groups and create a mistaken sense of complacency regarding risk of infection among others. Further, the focus upon high-risk groups obscures information on the pattern of sexual networks linking diverse groups in the population and the general prevalence of high-risk behaviors<sup>7</sup>.

Currently, most knowledge in India about HIV/AIDS in the general population comes from journalism rather than from academic research. An insistent theme in recent reports is that of heightened risk to youth, particularly in urban areas. An all-India daily reported that according to the Secretary of the Indian Association of Paediatricians, 15 to 30 per cent of metropolitan urban Indian 18 year olds had already experienced sex, with no effective contraceptive use<sup>8</sup>. A periodical described how increasing pre-marital sexual activity among urban Indian youth, coupled with lack of education on sex or contraceptive use, has led to burgeoning rates of out-of-wedlock pregnancy, abortion, and sexually transmitted diseases; and that male college students were the third largest group among the clientele of sex workers in Bombay<sup>9</sup>.

In recent months, recognising the increased danger of HIV infection to youth, AIDS awareness programs in India are specifically targeting urban school and college students, to disseminate information in the educational setting in addition to the general awareness messages broadcast through the media. This study assesses the extent to which accurate and complete information has been

absorbed by students in urban India, which in turn will point to areas in which awareness programs can strengthen their efforts.

#### **Data**

Data, gathered during August and September 1994, comprise both survey and qualitative information as recommended in the literature<sup>10</sup>. To get standardized information from a cross-section of college students, a 28 item questionnaire was distributed, including true/false questions; questions on personal backgrounds; and open-ended queries on attitudes concerning HIV/AIDS, condoms and sex. To ensure greater co-operation, a self-filled survey instead of a face-to-face interview format was used. Before answering, each respondent read a paragraph which stressed that participation was voluntary and their confidentiality would be strictly maintained.

Qualitative techniques included in-depth interviews in a conversational format, so that respondents could express their own concepts rather than conform to those in the predetermined survey instrument. College students, health professionals, and staff with government and non-governmental AIDS organizations were interviewed.

Due to the sensitive subject matter, truly random sample techniques could not be employed, since, with the exception of one or two cases, college authorities proved wary of "officially" facilitating their students' participation in such a study. Instead, a "convenience sample" approach was followed. Male and female research assistants distributed the survey questionnaires in several

colleges in each city. To get students from a wide range of backgrounds, ages, and subjects of study, in most cases they stationed themselves in the college cafeterias at varying times during the day and requested students entering to fill out the questionnaire. Male researchers approached male students and women approached women. Students of medical or dental colleges were specifically excluded. Thus, this convenience sample approach should not bias the group of selected respondents with respect to knowledge or attitudes regarding condom use and HIV/AIDS.

Overall there was high compliance with the study, with very few refusals to participate. Eight hundred and fifty four students, ranging in age from 17 to 32 years, returned completed survey questionnaires. Of these 39 per cent were men and 61 per cent were women. A wide range of subjects including humanities, science, social sciences, engineering and others were represented.

### **Basic awareness of HIV/AIDS**

The following sections describe the extent of basic knowledge of AIDS among the study population and their sources and networks of information, as a background to investigating in detail their knowledge of condom use, focusing on differences between men and women in attitudes and awareness.

### ***Basic knowledge of HIV/AIDS***

Self-reported levels of awareness of HIV/AIDS were high, since over 98 per cent of both men and women reported having at least some knowledge of the disease called AIDS. Less than 1 per cent answered "don't know" in response to the question "How much would you say you know about AIDS?", or reported having no knowledge of AIDS.

The fact that almost every respondent in this study was aware of AIDS may be attributed to their belonging to the most educated segment of the population; living in metropolitan areas; with recent exposure to AIDS information from various sources; and reflects the spreading awareness of HIV/AIDS in 1994 compared to the findings of the 1991 National Family Health Survey (NFHS) reported above.

### ***Sources and networks of information***

In this study, respondents reported all sources from where they received HIV/AIDS information within the month preceding the survey. Notably, 97 per cent of the total sample had received some information on AIDS in the month prior to the survey, lending further credence to the finding that almost all of them had heard of the disease. The most frequently mentioned source of information was the media: TV

(mentioned by 73 per cent), magazines and newspapers (74 per cent and 61 per cent respectively) and to a lesser extent, signs on streets, buses or trains (48 per cent). The radio was comparatively less important (25 per cent). Other notable sources were health department brochures, and friends and acquaintances (29 per cent each). Surprisingly, school or college sources were comparatively less mentioned (13 per cent).

If they wanted more information on HIV/AIDS, more than half the respondents (59 per cent) said they would consult medical sources (doctors or clinics) or printed information (library books, posters or pamphlets). 41 per cent said they would talk with friends, but very few (6 per cent) said they would consult a family member.

***Knowledge of the main modes of AIDS transmission***

The majority of the respondents, both men and women appeared aware of the modes of transmission of the AIDS virus. At least 95 per cent answered in each case that HIV infection was very or somewhat likely through: sex with an infected partner; use of unsterilized medical instruments; sharing needles with infected persons; or receiving transfusions of infected blood.

***Knowledge and attitudes about condom use***

Having seen that the sample of students has good basic awareness about HIV/AIDS, it becomes necessary, we argue, to examine whether this is accompanied by a correspondingly high level of condom

awareness. Attitudes about the acceptability and availability of condoms are also probed, particularly focusing on gender differences.

Table 1 presents percentages of male and female students answering basic questions related to correct condom use. While overall almost 90 per cent of the sample responded "True" to the question "Using a condom during sex can lower the risk of getting AIDS", less women (88.5 per cent) than men (92.6 per cent) thought this was the case. More women than men indicated they did not know the answer to this question. Once again, we see greater awareness of condoms as a means of AIDS prevention than reported in the 1991 NFHS.

Despite this knowledge however, the remainder of Table 1 indicates that awareness of specifics of condom use is low. Ignorance of such points can seriously detract from the optimistic picture presented by the high level of basic HIV/AIDS awareness and knowledge of the importance of condoms as preventive devices in the sample. The majority of the sample did not know whether condoms made of latex versus natural membranes were equally good at preventing the spread of disease. While a greater percentage of women answered "don't know", more men gave an incorrect answer. Though most condoms available in India are made of latex only, the lack of awareness indicates an information gap that needs to be addressed.

The potentially grave nature of this gap is seen in the responses to the next two questions, which address conditions more prevalent in the Indian context. Most people did not know that oil or oil-based lubricants can dissolve latex condoms. While more men than women

Table 1

## Knowledge Regarding Details of Condom Use

General Statement	Response	Total (n=854)	Females (n=522)	Males (n=326)
"Using a condom during sex can lower the risk of getting AIDS"	True (%)	90	88	93
	False (%)	4	3	3
	Don't Know (%)	7	8	4
	Total (%)	100	100	100
	$\chi^2 = 6.18$ p < 0.045			
Specific Statement	Response	Total (n=854)	Females (n=522)	Males (n=326)
"Latex condoms and natural membrane condoms are equally good at preventing transmission of AIDS"	True (%)	20	13	30
	False (%)	7	3	13
	Don't Know (%)	71	81	57
	Other (%)	1	2	1
	Total (%)	100	100	100
$\chi^2 = 67.31$ p < 0.00				
"Oil or oil-based lubricants can cause latex condoms to break"	True (%)	11	6	18
	False (%)	8	5	13
	Don't Know (%)	79	87	68
	Other (%)	1	2	1
	Total (%)	100	100	100
$\chi^2 = 56.94$ p < 0.00				
"Condoms can be used more than once"	True (%)	4	3	4
	False (%)	59	49	75
	Don't Know (%)	36	45	20
	Other (%)	1	2	1
	Total (%)	100	100	100
$\chi^2 = 59.11$ p < 0.00				

Note: Column totals may not always add to 100% due to rounding. Female plus males sample sizes do not add to total sample size due to missing gender identification for 6 respondents.

Source: "Study of HIV/AIDS Awareness and Attitudes among College Students in Urban Southern and Western India" 1994.

answered accurately, the proportion, 18.5 per cent, is very low. The vast majority of women did not know. A similar lack of knowledge and sex differential is seen in the answers to the question whether condoms can be re-used. The probabilities associated with the chi-square figures in this table indicate that male and female students differ significantly in condom knowledge.

With respect to attitudes regarding condom use and perceptions of availability (Table 2), we again see that though the majority of women think condoms are inexpensive and easily available, much greater proportions of women than men answered "don't know" to these questions. Substantially more men than women thought condoms inexpensive and easily available. The picture that emerges is one where men more than women feel that condoms are accessible to them.

This picture is reinforced by the distribution of male versus female students' responses to the questions regarding embarrassment surrounding buying, using or suggesting condom use to a partner. Greater proportions of women compared to men would feel embarrassed buying a condom. Men would feel less embarrassed than women suggesting condom use to a partner, or using a condom. Substantially more women than men answered "don't know" to these questions.

A notable dimension is added to this picture when we consider the "Other/Not Applicable" response categories. The instructions to the questionnaire encouraged respondents to clarify their answers whenever desired, and they were prompted again to do so when they indicated the "other" answer category to any question. Responding to the questions

Table 2

## Attitudes Concerning Condom Use

Question	Response	Total (n=854)	Females (n=522)	Males (n=326)
"Do you think condoms are expensive?"  $\chi^2 = 46.59$ p < 0.00	Yes (%)	4	3	6
	No (%)	66	59	78
	Don't Know (%)	28	36	15
	Other (%)	1	1	1
	Total (%)	100	100	100
"Do you think condoms are easily available?"  $\chi^2 = 30.94$ p < 0.00	Yes (%)	80	76	88
	No (%)	4	2	5
	Don't Know (%)	15	20	7
	Other (%)	1	1	0
	Total (%)	100	100	100
"Would you be embarrassed buying a condom?"  $\chi^2 = 87.62$ p < 0.00	Yes (%)	21	25	16
	No (%)	43	31	62
	Don't Know (%)	24	32	12
	Other / NA (%)	11	13	8
	Total (%)	100	100	100
"Would you be embarrassed using a condom?"  $\chi^2 = 83.90$ p < 0.00	Yes (%)	5	4	6
	No (%)	59	48	77
	Don't Know (%)	23	30	12
	Other / NA (%)	12	16	4
	Total (%)	100	100	100
"Would you be embarrassed suggesting condom use to your partner?"  $\chi^2 = 21.61$ p < 0.00	Yes (%)	9	8	9
	No (%)	62	60	68
	Don't Know (%)	21	25	12
	Other / NA (%)	8	4	7
	Total (%)	100	100	100

Note: Column totals may not always add to 100% due to rounding. Female plus males sample sizes do not add to total sample size due to missing gender identification for 6 respondents.

Source: "Study of HIV/AIDS Awareness and Attitudes among College Students in Urban Southern and Western India" 1994.

about embarrassment surrounding condom purchase and use, many students indicated "Other", clarifying spontaneously that these queries were "Not Applicable" to them. Significantly more women than men responded in this way, stating "I am a woman" as explanation. Fewer men chose this response, and their explanation typically was "I am not married, so I don't know at this time". The women's responses strongly suggest that they do not view condom purchase or use as being within their domain, and that this is considered the province of men. Very few women answered "Other/Not Applicable" to the question about suggesting condom use to their partner, further indicating that they view men as primary actors in condom use, and their control of events is limited to suggesting condom use. Again, women answered "don't know" more than did the men, and "No" less than men, to this question, adding to the impression that acceptance of condom use is much more widespread among men than women.

#### **Summary and discussion**

These data show that the most educated section of urban Indian youth, who have received AIDS information from various sources, have high basic awareness of the disease and its modes of transmission. They are also aware that condom use lowers the risk of infection.

However, awareness of the specific details of condom use that could lower their efficacy in preventing disease is poor. Though condom use is currently being promoted in India, no attempt is being made to impart information on the do's and don'ts of correct and

consistent use. Several kinds of informational materials disseminated by AIDS organizations were collected during the course of the research, and none of them provided guidelines regarding correct condom use, and neither did condom packages.

Academic and programmatic literature is silent on the subject of people's satisfaction with condoms, or on the various practises followed in condom use in India. Anecdotal evidence suggests that condom use in India is low due to people's physical discomfort with the device and psychological reluctance to be seen purchasing or possessing something explicitly prepared for sex. Although the government of India stopped marketing unlubricated condoms in 1991, descriptions up to that time depict the thick, dry devices covered with a whitish powder that created discomfort for men and women. Though lubricated condoms are now available, accounts still suggest that people experience discomfort and consequently, the most commonly used lubricants are kitchen oil and saliva<sup>11</sup>. Furthermore, in a society which does not partake of the "throwaway" ethos, re-using of condoms is not uncommon. Thus, the lack of awareness regarding the dangers of these practices among even the most educated groups indicates a gap that AIDS workers need to address.

The data also provide evidence that among educated, urban Indian youth, women have significantly less knowledge regarding condoms than did men. Many women also apparently view the purchase and use of condoms as male activities. Their role is more passive: they might suggest condom use to their partners.

Mason (1994) critiques analyses asserting that women's status limits their access to condoms, for failing to take into account the notion that women might not desire to use them. She argues that women's preferences are conceptually prior to their social status, for influencing their use of condoms. This <sup>study however</sup> suggests that knowledge regarding condoms may precede the desire to use them, and social norms about appropriate sexual information or preparation on women's part may influence their knowledge of condoms. In other words, dimensions of women's status may influence their knowledge and consequently their desire to use condoms, in addition to affecting their power to do so.

This study therefore identifies two issues that condom promotion campaigns in India need to address. First, there is currently a great paucity of information about people's practises of condom use, and their satisfaction with them. Since potentially dangerous practises may be prevalent, appropriate information needs to be disseminated. For example, none of the AIDS educational material distributed in the 4 cities covered by this study mentioned details of correct condom use. Echoing some of the early errors of family planning programs, a major overview of social marketing of condoms in India made no mention of feedback on customer satisfaction with the products or other demand factors, but concentrated exclusively on various marketing and supply techniques<sup>12</sup>.

Second, much more effort and sensitivity is needed to increase condom acceptability and availability to women. The same marketing study defined the typical consumer as a male, with a wife currently in

the reproductive age group. A series of short television items promoting condoms in South India depicts a pleasure-loving male protagonist, who is exhorted to use the devices to protect him from the dangers of his lifestyle, represented by a series of photographs of young women. Women are therefore erased as condom purchasers or users not only by social norms, but also by the institutions whose goal is condom promotion. Ignoring the fact that women are more easily infected by men during sexual intercourse than vice versa, they are still often stereotyped as dangerous sources of infection.

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