A STUDY OF GENDER RELATED AND RURAL - URBAN DIFFERENCES IN KNOWLEDGE AND ATTITUDE TOWARDS AIDS, SEXUALITY AND RELATED GENDER ISSUES AMONG COLLEGE STUDENTS IN KERALA

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CERTIFICATE

This is to certify that the Dissertation titled A study of gender-related and rural-urban differences in knowledge and attitude towards AIDS, sexuality and related gender issues among college students in Kerala, is an authentic record of the work carried out by Dr. S. S. Lal under my supervision and guidance and that not part thereof has been presented for any other degree.

Thiruvananthapuram
30 - 6 - 1998

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Dr. S. S. Lal

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ABSTRACT

A study of gender-related and rural-urban differences in knowledge and attitude towards AIDS, sexuality and related gender issues among college students in Kerala.

Abstract

Background: AIDS is a major emerging public health problem in India. Knowledge about spread of HIV and safe sexual practices have a critical impact on the prevention of HIV infections. Adolescents and college students constitute a group at high risk of HIV infection.

Objectives: The objectives of the present investigation were to a) assess the prevalent knowledge and attitude towards the Acquired Immunodeficiency Syndrome (AIDS) sexuality and related gender issues in a sample of college students and b) examine the impact of gender and place of residence on the knowledge and attitude towards AIDS, sexuality and related gender issues.

Methods: A total of 625 college students in the age group 18 - 22 years from Thiruvananthapuram district, Kerala State, India were surveyed during January and February 1998 to assess their knowledge and attitude about AIDS and sexuality. Five colleges each from urban and rural areas were selected. Students from the three major subject streams, viz., arts, science and commerce were interviewed. Students were selected randomly and interviewed using a structured pretested questionnaire. Focus group discussions were also conducted to complement the information gathered from questionnaires.

Results: In general, the awareness about AIDS among the college students was very high. Hundred per cent of the students had heard about AIDS. Though, most of the students were aware of the general modes of transmission of AIDS, a considerable proportion had misconceptions also. Awareness about sexually transmitted diseases (STDs) was low (34%). Only less than half of the students knew that AIDS is not a curable disease. Likewise, the awareness about the methods of prevention of STDs was also low (63.4%). The communication about sex, and hence about AIDS, was found to be very poor inside families and within educational institutions. Furthermore, the attitude of an individual towards AIDS was entangled with his / her concepts of moral values. A

substantial proportion (41%) of the students associated AIDS with immoral behaviour. There were many misconceptions about sex and sexuality. We detected significant gender-related and rural - urban differences in the knowledge and attitude towards AIDS and the related areas of sexuality and gender. The knowledge and favourable attitude, in general, was higher in males compared to females and in urban students compared to rural students. These findings are surprising given the hundred percent literacy in the State. We performed multivariable linear regression of knowledge and attitude scores on select predictor variables. In these analyses, male sex and urban residence were associated with higher knowledge scores regarding AIDS, STDs and sexuality. Urban residence and Christian religion emerged as important determinants of attitude towards AIDS, sexuality and related gender issues.

Conclusions: Our cross - sectional study conducted in the State of Kerala, with the highest literacy rate in the country, demonstrates substantial lacunae in the knowledge of AIDS among college students. The gap in knowledge between females and males and between rural and urban college students suggests the need for targeting more women in the rural areas in the national AIDS education / awareness campaigns.

INTRODUCTION

"AIDS has already taken a terrible human toll, not only among them who have died but among their families and communities. Short of an affordable cure, this toll is certain to rise. Ninety percent of HIV infections are in developing countries, where resources are most scarce. But the course of the epidemic is not carved in stone"[1].

A. Introduction

AIDS is a disease which has a multi - dimensional impact. The biological, psychological, social, demographic and economic consequences of the disease have been well enunciated. Since the first AIDS case was detected in U.S.A in 1981, the HIV / AIDS epidemic was spreading across the globe at a very high speed. Large mobile populations, rapid urbanisation, illiteracy and the presence of other sexually transmitted diseases influence the spread of the disease especially in developing countries. The long period of invisibility of AIDS makes an HIV infected person look like anyone else in the society and one can not recognise an HIV infected person by appearance or behaviour. The seropositivity will be detected only if the infected person undergoes testing of blood. As the universal screening of blood for HIV is virtually impossible and meaningless in several parts of the world, it would not be unreasonable to be wary of the HIV status of sexual partners. Since sex in its various forms is universal, anybody is now at risk of getting AIDS. This argument is reinforced by the fact that the diseases is increasingly being transmitted from husband to wife and from mother to child[2]. According to UNAIDS, about 1.5 million people died from AIDS in 1996. Each day, about 8,500 people including 1000 children, become newly infected with HIV. About 90% of these infections occur in developing countries, where the disease is likely to exacerbate poverty and inequality[1]. The WHO estimates that by the end of 1995, over 5 million people have died of AIDS all over the world and as of July 1996, nearly 30 million adults and children have been infected with

HIV all over the world[2]. It is also estimated by the WHO that this figure will increase to 40 million by the year 2000 AD[3]. The progression of the disease, which may span from eight to ten years period in adults, is much more rapid in infected infants. Fifty per cent of such infants die before they reach the age of 2 years and over 90% do not live to see their fifth birthday[4]. If AIDS spreads in the same pace as it has today, the population of certain regions with high incidence of AIDS could completely be wiped out in the near future.

The HIV / AIDS poses an unprecedented challenge to the existence of mankind. Unlike other diseases, it selectively and disproportionately targets two groups - young adults who are in their prime reproductive and economically productive years, and the very poor and socio - economically marginalised populations[5]. The personal and social repercussions of the disease include severe discrimination and stigmatisation of people living with AIDS[6].

AIDS in India

According to an estimate made by the regional office for south-east Asia of the World Health Organization[7], India has over two-thirds of the HIV infected individuals in the region. The projections of the WHO indicate that by the year 2010 AD, half of the AIDS patients in the world will be in India. The World Bank's 1993 World Development Report depicts the HIV/AIDS scenario in India as potentially one of the worst in the world. In Vancouver, at the International AIDS conference 1996, UNAIDS and AIDSCAP of Harvard school of Public health declared that the estimated number of HIV carriers in India is between two and five millions.

The general features of the epidemic are almost similar throughout the country except for a few regions. By September 30, 1997, the seropositivity rate obtained through screening of high risk groups and suspected AIDS cases is 21.15 per thousand and a cumulative total of 4980 AIDS cases

have been reported[2]. The most important source of infection in India is heterosexual intercourse, although HIV can be transmitted through blood or blood products and from a pregnant or lactating mother to a child[2]. The relative contributions of different modes of transmission to HIV transmission are heterosexual contact (74.7 per cent) followed by transfusion of blood or blood products (7 per cent) and injectable drug use (6.9 per cent) [2]. In the north eastern states like Manipur, the major mode of infection is through needles shared by intravenous drug abusers[2]. Males account for 78.7 per cent of AIDS cases in the country while females constitute only 21.3 per cent[2]. In India also, like any other part of the world, the majority of infected people belong to the age group of 15 - 44 years[2,5]. In India, the spread of HIV has distinct patterns; Itspreads from the urban to the rural areas, and from individuals practising high risk behavior to the general population. The seropositivity among the STD patients ranges from 5 to 37 per cent in various regions, while among the intravenous drug users it varies from 24 to 85 per cent. Among antenatal mothers the reported seropositivity varies from 0 to 4.25 per cent[2].

There are some inter - state variations when the trends in different aspects of the disease like the beginning of infections, the mode of spread, and the speed of spread are considered. It was also pointed out by the National AIDS Control Organisation that the available trend indicates that the epidemic is not uniform all over the country[2]. According to an estimate made by the regional office for south-east Asia of the World Health Organization[7], Maharashtra and Tamil Nadu states account for nearly 60 per cent of the AIDS cases detected, with 288 and 372 cases respectively, while Kerala and Delhi have reported respectively fourth (76) and fifth highest (75) cases. The variations between different states do not seem to correspond to the health status or the achievements in the health and allied fields. Furthermore, it does not seem to be related to the literacy rate or socioeconomic status as is

evidenced by the fact that the highest number of HIV infections are in Maharashtra, Tamil Nadu and north - eastern State of Manipur.

Awareness about AIDS in India.

The National AIDS Control Organisation since its inception has been trying to create awareness about AIDS among all sections of people and among certain high risk groups. The sexually active groups, especially the youth, have been identified to be at high risk for AIDS by the National AIDS Control Organisation[2] and by the state AIDS cells. Accepting this fact, a majority of the states in India have started programmes targeting the youth. The Central and State Governments in India have launched IEC (Information, Education and Communication), programmes through mass media and by other means to increase the awareness about AIDS. Non - governmental organisations are also involved in similar programmes. Though there are studies on the knowledge and awareness about AIDS among different populations, very little is known about the impact of the awareness programmes on people[6]. Several studies of commercial sex workers have demonstrated that the baseline awareness of AIDS varied from 5 - 31% and the use of condoms was about 20%[8]. Follow-up studies revealed that AIDS education in these samples led to a substantial increase in AIDS awareness and condom usage.

Sexuality and AIDS in India

World Health Organisation has emphasised the importance of information on sexual practices as a basis for prevention of AIDS[2]. This has specific relevance to India where the principal mode of transmission is through heterosexual intercourse. Despite being the least efficient mode of transmission, heterosexual contact assumes importance in the Indian cultural and social context primarily due to the large size of population and the frequency of exposure[9].

Practicing safe sex is the corner stone of prevention of AIDS. In order to practise safe sex, knowledge about sex is required for which sex education is a prerequisite. But, sex is a word thoroughly misunderstood in India. Again, the practice of safe sex depends on the individual and hence it becomes very difficult for agencies like the governments or AIDS cells to impose safe sexual practices upon people. Since sex is a biological need and hence inevitable for humans, one cannot think of advising people to abstain from sex in order to prevent AIDS. A study among the educated middle class in Calcutta, Delhi and Chennai found that the proportion with experience of extramarital sex was 9 per cent among men and nearly 3 per cent among women[10]. Sex is a social activity, and interaction subject to negotiation. It does not result from individual rational choices alone"[11]. The cultural diversities and social issues in a country like India further render the issue more complex. Also, women in India do not enjoy the same amount of sexual freedom as men do. Women will not be able to insist on condom use during sex either inside or outside of marriage. It is pointed out by Ramasubban[12] that, in India, it is difficult for women to avoid sexually transmitted diseases including AIDS because of this fact. Also the sex workers cannot insist on their clients wear condoms because it may adversely affect their business. Even when sex workers themselves are infected, they are forced to provide sex in order not to loose income.

The adolescents who are keen to have information about sex try to get it from all available sources and media. A survey by the Sex Education Counseling Research Training and Therapy (SECRT) department of the Family Planning Association of India reported friends (48%) as a major source of information followed by pornographic literature (26%) and blue films (22%) among boys[13]. The survey showed that girls were less likely to obtain sex-related information from friends,

pornographic literature and blue films. This lack of knowledge regarding sexuality assumes special importance in view of the AIDS epidemic.

Young university students have been identified as a group to be targeted for sex education[10]. Proper sex education of the youth necessitates the incorporation of sex - related knowledge in the formal curriculum in schools and colleges. But, making sex education a part of curriculum has not proven to be an easy task in India. In addition to many other obstacles, such an attempt is met with resistance from parents, teachers and even students. Legal restrictions, stigma and parental authority are identified as the major factors that prevent free discussion about sexuality or AIDS[6]. Again, prevalent, biased and distorted beliefs about sexual behaviour along with some misconceptions about transmission of HIV often lead to either ominous complacency or undue panic regarding AIDS.

Unmarried Indian youth, especially those from the middle and upper classes are reported to be becoming more adventuresome about premarital and extramarital sex. It has been reported that extramarital sex is practised by as high as 50 per cent of the married men[6]. There is a paucity of well conducted studies on the sexual behaviour of Indians. Whatever little literature on sexuality of contemporary Indians is currently available is written mostly by psychiatrists who are concerned primarily with the pathological aspects of sex and by authors of erotic fiction who tend to exaggerate the deviant types of behaviour and focus on narrowly defined groups of people[6]. Now, the AIDS epidemic is a powerful incentive for research on sexuality.

Sexually transmitted diseases (STDs).

STDs significantly increase the likelihood of HIV transmission[14,15]. The WHO estimates that, each year, there are over hundred million bacterial, viral and trichomonal infection around the world[15]. There is strong evidence that chlamydial infection, gonorrhoea and trichomonal infections

greatly increase the risk of sexual transmission of HIV especially when accompanied by genital ulcers, a common symptom of some of the STDs[5]. The prevailing cultural norms of universal marriage, early age at marriage and early onset of coital activities and child bearing as well as the prevailing demographic structure, imply that an overwhelmingly high proportion of the Indian population comes within the sexually active age group[9]. The rising trends in STD incidence[2] underscore their potential contribution to spread of the AIDS epidemic.

Gender issues related to AIDS :

According to currently available estimates, between one third and one half of HIV positive persons in India are women [4]. While many of these women belong to the particular vulnerable group of commercial sex workers, a sizable proportion belong outside this group. The latter group includes women infected through heterosexual transmission largely within the institution of marriage. While the patriarchal family with its norm of early, universal and monogamous marriage is ideally expected to constitute a secure environment for heterosexual relations, the degrees of sexual freedom enjoyed by man may pose threats to women's health[9]. Other factors, besides male promiscuity, contributing to the increase in spread of HIV among women include their passive sexual role, their reluctance to insist on condom usage, and their acceptance of discomfort silently[9].

Epidemiology of HIV is influenced by the Knowledge, Attitude and Practice

As the spread of HIV is intimately connected to the knowledge, beliefs, attitudes and behaviour of people, fundamental changes in these is a primary requisite for HIV prevention. Thus, before formulating policies for prevention of HIV, obtaining information about prevalent knowledge, attitude and practice (KAP) regarding HIV and sexuality of population is critical.

The status of KAP in Kerala.

The sociocultural milieu of Kerala is particularly conducive to HIV spread. The social system is such that anything connected to sex is not spoken loudly or in public. Sex education has not yet been included in the school or college curriculum. Even the attempts to include basic scientific knowledge about the human reproductive system had to be withdrawn due to vehement protests from various corners. Teachers generally believe that speaking about sex will take away their power over the students. This was evidenced by the total failure of the teachers trained by the State AIDS cell to pass the information to the student community. On the other hand, it is reported that a considerable percentage of students are involved in premarital sex inside their love affairs (15%) and with others (7.9%)[16].

Estimates of HIV prevalence in Kerala are variable[2,3,17]. Yet, all the projections are unanimous that AIDS will be one of the most important public health problems in Kerala in the near future. Accepting this fact, the Government of Kerala has given top priority to AIDS awareness programmes targeting the youth. These programmes are being organised by both the governmental and the non-governmental agencies, but are centred around urban areas due to various reasons. We do not have sufficient information about the reach and the effectiveness of these programmes. There have been only a few studies on the knowledge, attitude or practice of any population in Kerala.

Review of literature :

Table **A** summarises prior KAP studies conducted among youth elsewhere in India. These data suggest considerable regional heterogeneity in knowledge regarding HIV, gender differences in such knowledge and the sources of information regarding AIDS and HIV. The knowledge and attitude towards AIDS and HIV varied depending on the site of the study and the population studied.

Table. A review of 'KAP' studies on AIDS in India.

Study (year)	Population studied	Number surveyed	% aware of HIV sexual spread	% aware of role of condom in prevention	Sources of information	Comments
Kumar et al[20] 1996	College Students	329	63 - 87	60	-	Gender Differential regarding prevention of HIV.
Francis et al [21]	secondary students in Delhi	716	94	70	Books, friends, cinema and parents	misconceptions are prevalent
Pandit et al[22]	Senior secondary students in Delhi	627	-	86(boys) 58.9(girls)	TV,magazines,news papers	gender differential present except in modes of transmission
Aggarwal & Kumar [19]1996	9,10class children in n Haryana	336	-	44	books, TV, news papers	Boys have better knowledge. rural - urban differential also seen
Bahulekar & Garg[18]	college students of Wardha	1600	-	50.4	Television most important	Males more knowledgeable
Wadhva et al[23]	school students of Nagpur city	718	-	-	TV, radio, magazines, n. papers	Majority wants sex education. misconception about treatment.
Tikoo et al[24],1995	School students in Delhi	893	-	-		Boys performed better than girls
Aggarwal et al[25]	college students of Delhi	378	74.3	-	TV, news papers, books	students well aware, no need of additional education
Mukhopadhyay et al[26]	Burdwan municipal area	-	-	-	TV followed by news paper	Female students more aware than males
Rahate et al[27], 1995	college students of Nagpur	261	70	39.46		45.2 % know that there is no cure for AIDS
Lal et al[28], 1994	College students of Delhi	322	-	-	News paper, TV, magazines	Science students have more knowledge than others
Verma et al[29], 1988	College students in Bombay	136	-	-	Foreign magazines, news papers,TV.	Majority favoured single partner sex
Das and Baishya[30], 1994	College students of Guwahati	270	-	-	TV, news papers, magazines, friends	Only 62% under graduate students knew that STD had relation to HIV
Sundar et al[31]	Students of Bangalore	1128	81	59(female) male more	Mass media	90% students thought masturbation as a mode of transmission

Table B Review of studies on sexuality in India

Study (Year)	Population studied	Number surveyed	% of pre-marital sex		Age of first sexual encounter	Comments
			Male	Female		
FPF & ORG[32] 1991	School students of U.P, Rajasthan, Hariyana and Delhi	-	-	-	-	Boys had more liberal views than girls
FPAI[13] 1990	15 - 25 yr youth in 16 Indian cities	16,000	-	-	-	Nearly 50% said pre-marital sex is the concern of the individual and not the society. Men are more liberal.
Fonseca[33], 1966	College students of Bombay	-		-	-	14% (Majority of girls) thought pre-marital sex is immoral
Goparaju[34], 1994	College students in Hyderabad	-	28 (Combined)		-	Another 36% wanted to have pre-marital sex. More in rural students. Neighbours were most common partners
Reddy et al[35], 1983	College students in Madras	-	-	-	15 - 25 yrs (61% males & 48% females)	Majority wanted sex education to be included in schools and colleges
Rakesh[36] 1992	Female college students in Delhi	-	-	6	-	Majority were concerned about contracting STDs after sex
Sehgal et al[37] 1992	Male school students in Delhi	-	-	25	-	The median age of sex was 15 years
Savara and Sridhar[38], 1994	College students in 4 towns of Maharashtra	-	19 (Combined)		17 years	1.6% had first experience with female sex workers.
Sharma and Sharma[39], 1996	Collage girls in rural Gujarat	530	Nil		-	Level of knowledge was positively related to educational status.

In some of the studies there are gender and rural-urban differences in the knowledge, awareness and attitude about AIDS[18,19] while some other studies do not report any such disparity[20].

Table **B** summarises the results of surveys examining the prevalence of pre-marital sex among youth in India. These surveys confirm the existence of premarital sex among youth (prevalence range 6 - 28%) and emphasise the role of knowledge about sex in determining sexual practices.

OBJECTIVES

B. Objectives

The objectives of this study are to study the knowledge and attitude towards AIDS, sexuality and related gender issues. We also proposed to investigate the impact of gender and place of residence (rural versus urban) on this knowledge and attitude.

We chose Kerala for study because of some specific reasons in addition to convenience. The high literacy rates in the state, the crucial role of mass media, and the emphasis on health and the achievements in the health sector render Kerala a model state to test the efficacy of AIDS related educational campaigns.

METHODS

C. Methods

Sampling frame . The sampling frame in the present study was the arts and science colleges of Thiruvananthapuram district. Again, this district was chosen because of specific reasons. Thiruvananthapuram, being the capital district of Kerala, has the highest educational achievements in the state in part because of the concentration of Government offices and educational institutions. The adequate representation of women in colleges in Thiruvananthapuram is another reason for selecting our sampling frame. The students belonging to the third (final) year degree (B.A, B.Sc, B.Com) classes were selected for study. We targeted this group because they are at high risk of getting HIV infection and because this group has a wide exposure to books, mass media and educational programmes.

Sampling. There were 21 colleges in the district of which 10 were in the city and the other 11 in the villages. Stratified multistage cluster sampling was adopted. 625 students from 10 arts and science colleges were studied in the present investigation. Five colleges from the cities and five from the villages were randomly selected such that in addition to equal rural - urban representation, all characteristics, viz., regions, religions, communities, socio-economic classes were represented. All students in a selected class were enrolled in the study. Only one college among the 10 was a 'women's only' college. All others were co-education colleges. There were 164 males and 461 females in our study sample.

Survey instruments. The instruments used for assessment of KAP were (1) printed questionnaire and (2) focus group discussions. The structured questionnaire contained 69 questions which had multiple responses from which the interviewee was supposed to select the right ones. The questionnaire was prepared after extensive literature search and after consultation with experts in the

field. The questionnaire was pretested among various groups including college students. The questions were printed in English and Malayalam, the regional language (see appendix. 1). Subject and linguistics experts were consulted for translation of the questionnaire also. The questionnaire was pre - tested after translation. The questions were aimed to test the knowledge and attitude towards AIDS and related sexuality and gender issues. Each question had a single correct answer (as accepted by the international bodies) or a favourable attitude (desired attitude in the socio-cultural contexts of the country).

During the survey, it became evident that there were areas which could not be dealt with the questionnaire alone as some questions could appear to be very personal and would not have elicited correct information. This prompted us to utilise 'focus group discussion' as a complementary research method for supplementing the information obtained from the questionnaire. We, therefore, conducted a few focus group discussions among college students.

Survey methods. The details about the location and other characteristics of the colleges were collected from the office of the University of Kerala and the University Health Centre. Then the Principals of the colleges were contacted over telephone and appointments were scheduled. As per the appointments, the investigator met the college principals and discussed the objectives of the study and the methods to be used.

The list of the third year degree classes in each college was compiled and classes were randomly selected from the three major subject streams, viz., arts, science and commerce. Then the heads of departments of these classes were met and permission to interview the students was sought. Before starting the actual survey in each class, a brief introduction about the background and objectives of the study was presented to the students. After making sure that the students had

sufficient time to answer the questions, the questionnaires were provided to the students. The students were encouraged to seek clarifications in case of any doubt regarding any of the questions, if the meanings of any question was not clear. Generally students took between 20 and 30 minutes to answer the questionnaire. It took slightly more than one month to complete the survey. Focus group discussions were done in two colleges, one with a female and another with a male group.

STATISTICAL METHODS

D. Statistical methods

Descriptive statistics was used to translate the responses of the students to the questions. The chi square test was used to test for differences in responses by gender and place of residence. Scores were generated for students for questions with a single correct response. Scales were designed to measure the favourable attitude towards AIDS, related sexuality and gender issues. A 'p' value of <0.05 was taken to indicate statistical significance. We used multivariable linear regression to study the association of *knowledge about AIDS, AIDS prevention and sexually transmitted diseases* with select predictor variables. The dependent variable was the total knowledge score of a respondent (obtained by summating the separate scores for knowledge about AIDS, AIDS prevention and sexually transmitted diseases; continuous variable). The predictor variables evaluated included sex (male=1, female=2), place of residence (urban=1, town=2, rural=3), religion (Hindu=1, Muslim=2, Christian=3), subject stream of the student (arts=1, science=2, commerce=3) and socioeconomic status (low income=1, middle income=2, high income=3). The socioeconomic status (determined for each student) was a composite of resource-based (income of parents, educational credentials, material assets) and prestige-based measures (occupational prestige) of both parents.

Multivariable linear regression analyses were likewise performed to evaluate the association of *attitude towards AIDS, sexuality and gender issues* with the predictor variables listed above. The dependent variable was the total attitude score of a respondent (equal to the mathematical sum of individual scores for attitude towards AIDS, sexuality and gender; continuous variable).

RESULTS

E. Results.

The survey covered 10 colleges in Thiruvananthapuram district. A total of 625 students (164 males and 461 females) were surveyed. The general attendance in the classes ranged from 50 per cent to 75 per cent A general feature in all the colleges was a lower proportion of the male students among the attendees. Males constituted only 26 per cent of our study sample.

Socio - demographic characteristics.

Of the 625 students, 96.6 per cent were between 18 and 22 years of age while 1.4 per cent were above 22 years. Most students (98.1 per cent) were unmarried. The percentage of the students residing in the city, towns and villages were 31.2, 9.9 and 55.7, respectively. The percentage staying in college hostels or other institutions was 2.6 per cent, while 0.6 percent had not stated where they were staying. (In Kerala, the local administrative division is composed of three categories: (1) cities - urban areas where the local body administration is the *corporation*, (2) towns - semi urban areas where the local body administration is the *municipality* and (3) villages - rural areas where the local body is the *panchayat.* Thiruvananthapuram district has a city, 4 towns and more than 25 villages) . The sample contained 46.1 per cent students from arts , 43.5 per cent from science and 10.4 per cent from commerce subjects. Commerce is a subject with fewer seats compared to the Science and the Arts streams in all the colleges. Hindus constituted 73 per cent of the subjects, while 10.7 per cent were Muslims and 16 per cent were Christians. Other socio-demographic features of our study sample are tabulated in table **C, D** and **E.**

Table. C Sociodemographic features of study sample

Marital status	Married **1.9%**	Single- **97.8%**	No response **0.3%**						
Age	18 years **0.8%**	19 years **21.3%**	20years **59.5%**	21 years **12.8%**	22 years **4.2%**	>22 years **1.4%**			
Head of family	Father **93.9%**	Mother **4.6%**	Uncle **0.2%**	Brother **0.3%**	Sister **0.5%**	Others **0.2%**			
Education of father	Nil **1.8%**	7th standard **11.4%**	10th standard **38.1%**	10+2 **12..3%**	Gradua-tion **17%**	Post graduation **8.3%**	Professi-onal **9.3%**	No response **1.8%**	
occupation of father	Unskilled worker **1.4%**	Skilled worker **7.2%**	Petty shop **1.3%**	Business **15.4%**	Professi onal **3.8%**	Agriculture worker **4.2%**	Agricul: cultivator **10.9%**	Govt. servant **39.2**	Others **13.4**
Father staying	Inside Kerala **83.8%**	Outside &in India **2.6%**	Abroad **7.7%**	No response **5.9%**					
Education of mother	Nil **2.2%**	7th standard **11%**	10th standard **48.2%**	10+2 **15.7%**	Gradua-tion **13.1%**	Post graduation **4.2%**	Professi-onal **3.2%**	No response **2.4%**	
occupation of mother	Unskilled worker **1.4%**	Skilled worker **0.3%**	Petty shop **0.2%**	Business **0.5%**	Professi onal **0.6%**	Housewife **74.1%**	Agricul: worker **0.3%**	Agricul: cultivator **0.2%**	Govt. servant **19.8%** other1.3%
Mother staying	Inside Kerala **96.8%**	Outside &in India **0.8%**	Abroad **0.3%**	No response **2.1%**					

Table. D Sociodemographic features of study sample

Material assets	Yes	No
Radio	96%	4%
Television	82.2%	17.8%
VCR	29.3%	70.7%
Telephone	32.8%	67.2%
Refrigerator	46.7%	53.3%
Bicycle	45.9%	54.1%
Scooter	25.8%	74.2%
Bike	13.9%	86.1%
Car	12.2%	87.8%

Table. E Sociodemographic features of study sample

Type of house			
Thatched **8.2%**	Tiled **33.1%**	Terraced single storey **61.1%**	Terraced double storey **17.3%** no response-0.6%

Knowledge and attitude towards AIDS

Source of information. In the study sample, hundred per cent of the students had heard about AIDS before the interview; 61.1 per cent more than 2 years ago, 20.6 per cent in the last 1 to 2 years and 17.3 per cent did not remember when they had heard about AIDS. The main sources of information about AIDS were news papers (86.6 per cent), television (70.2 per cent), magazines (57.4 per cent), radio (54.6 per cent) friends (42.1 per cent), awareness programmes (37.9), teachers (29.4 per cent), parents (10.6 per cent), sisters (5.4 per cent), neighbours (5.3 per cent), and brothers (3.7 per cent).

The knowledge about AIDS

Table 1 displays the response of students to questions regarding AIDS transmission. A very high proportion of students (96%) know that AIDS can spread through sexual intercourse. Similarly, a very high percentage of students know that AIDS can spread from a pregnant mother to her child and that AIDS cannot spread through mosquito bite. The vast majority of students believe that a woman can get AIDS from her husband also. The proportion believing that AIDS cannot spread through toilets and bath rooms is also very high.

Only less than half of the students knew that AIDS, at present, is not a curable disease and that sex with a person whom they know very well could also cause AIDS. About a third of the students believe that a person can get AIDS by donating blood in a blood bank.

Table. 1 Knowledge about AIDS according to gender of respondent

STATEMENT	True (%)			False (%)			Don't know (%)		
	M	F	T	M	F	T	M	F	T
AIDS can spread through toilets and bath rooms.	1.8	3.3	2.9	90.8	80.9	83.5	7.3	15.2	13.1
AIDS can spread through sexual intercourse	94.5	96.5	96.0	4.3	2.0	2.6	0.0	1.5	1.0
A person can get AIDS by donating blood in a blood bank	37.2	38.0	37.9	56.7	44.9	48.0	5.4	16.0	13.3
AIDS can spread from pregnant mother to child.	89.0	85.9	86.7	8.0	5.4	6.2	1.8	8.5	6.7
AIDS can spread through mosquito bite.	10.9	12.4	11.8	79.2	67.2	70.4	9.8	19.7	17.1
AIDS is a curable disease, if diagnosed in the early stages	25.0	28.0	27.2	59.8	39.7	45.0	15.2	30.8	26.7
A women can not get AIDS from her husband.	9.1	7.5	8.0	88.4	79.1	81.6	2.4	12.6	9.9
Sex with a person whom you know very well can also cause AIDS	43.3	33.6	36.2	42.0	30.6	33.6	14.0	34.1	28.8

When the students were categorised based on their scores in the knowledge scale of AIDS (Table 2), 6.7 per cent males and 14.3 per cent females had a score less than or equal to 3 (lowest) while 12.2 per cent males and 6.5 per cent females scored 8 (highest).

Table. 2 Knowledge scores and the gender differences

Score	Male (%)	Female (%)	Total (%)
<= 3	6.7	14.3	12.3
4 - 5	22.0	36.0	32.3
6 - 7	59.1	43.2	47.4
>= 8	12.2	6.5	8.0
Total (%)	26.2	73.8	100.0

(p< 0.001, chi square test)

Rural - urban comparison : Regarding the spread of AIDS through sexual intercourse, from pregnant mother to child and from husband to wife students in general have good knowledge. But, the knowledge was very low in certain other areas. Examples were the questions whether sex with a person whom one knows very well can also cause AIDS and whether AIDS is curable at present. Regarding whether AIDS can spread through mosquitoes, toilets and bathrooms the knowledge is high. About the risk of getting AIDS by donating blood in a blood bank, less than half of the students knew the answer. In all the aspects, there is a gradient of better knowledge when we move from the rural to urban areas through semi urban areas (Table. 3).

Table. 3 Knowledge about AIDS: by place of residence of respondent.

Statement	True (%)			False (%)			Don't know (%)		
	City	Town	Village	City	Town	Village	City	Town	Village
AIDS can spread through toilets and bath rooms.	3.0	0.0	2.8	88.2	87.0	81.3	8.7	12.9	15.2
AIDS can spread through sexual intercourse	97.0	98.4	94.8	2.6	1.6	2.9	0.5	0.0	1.7
A person can get AIDS by donating blood in a blood bank	41.0	41.9	35.3	47.0	43.5	49.7	11.7	12.9	14.0
AIDS can spread from pregnant mother to child.	89.2	90.3	84.2	5.0	3.2	7.8	5.6	6.5	3.9
AIDS can spread through mosquito bite.	6.1	4.9	15.2	77.9	72.5	65.8	15.3	14.5	18.3
AIDS is a curable disease, if diagnosed in the early stages	22.1	25.8	28.7	52.8	50.0	41.1	23.6	22.6	29.3
A women can not get AIDS from her husband.	8.2	8.0	7.5	82.6	80.6	81.3	8.7	11.3	10.6
Sex with a person whom you know very well can also cause AIDS	38.5	37.1	34.8	33.8	33.8	33.9	25.1	29.0	30.7

When it comes to the knowledge score also, this gradient can be seen. A larger proportion of students from rural areas had low scores (Table. 4). When we cross-tabulated the knowledge scores according to the gender and the place of residence of the respondent, the urban-rural gradient in knowledge was statistically significant in the case of females alone (Table. 5)

Table. 4 Knowledge scores of AIDS: by place of residence.

Score	City (%)	Town (%)	Village (%)	Total (%)
<= 3	7.2	11.3	14.9	12.3
4 - 5	31.3	29.0	33.0	32.3
6 - 7	52.3	46.8	45.1	47.4
>= 8	9.2	12.9	6.9	8.0
Total (%)	31.2	9.9	55.7	100.0

p=0.086

Table. 5 Knowledge about AIDS: rural - urban differences by gender of respondents.

Score	City (%)	Town (%)	Village (%)	Total (%)
<= 3 (M)	7.0	0.0	7.7	6.7
(F)	7.3	14.3	17.4	14.3
4 - 5 (M)	21.1	7.7	35.6	22.0
(F)	35.5	34.7	35.7	36.0
6 - 7 (M)	59.6	84.6	53.3	59.1
(F)	49.3	36.7	42.2	43.2
8 (M)	12.3	7.7	13.3	12.2
(F)	8.0	14.3	4.7	6.5

(males; p = 0.554) (females; p = 0.039)

Knowledge about prevention of AIDS.

Table 6 displays the responses of students to questions regarding AIDS prevention. A majority of students were aware of the role of condom in the prevention of AIDS and STD.

Table. 6 Gender differences in knowledge about prevention of AIDS.

Statement	True (%)			False (%)			Don't know (%)		
	M	F	T	M	F	T	M	F	T
Condom prevents AIDS	93.3	72.7	78.1	4.3	7.4	6.6	2.4	19.5	15.0
Condom prevents sexually transmitted diseases.	83.5	56.2	63.4	9.1	34.7	10.6	7.3	31.9	25.4
Total avoidance of sex (abstinence) is a way to prevent AIDS.	24.4	20.6	21.6	70.7	55.7	59.7	4.8	22.7	18.1

When we examined the variation in responses according to gender of the respondents, we found a striking difference between males and females in our study sample.

Table. 7 Scores of knowledge about prevention of AIDS according to gender of respondent.

Score	Male (%)	Female (%)	Total (%)
0	1.8	17.4	13.3
1	14.6	26.7	23.5
2	64.0	45.1	50.1
3	19.5	10.8	13.1
Total (%)	26.2	73.8	100.0

$p<0.001$

Women displayed a lower awareness about the benefits of condom usage. Table. 7 underscores that women had lower knowledge scores regarding AIDS prevention compared to men in our study sample.

Table 8 compares the knowledge of respondents according to their place of residence. A gradient of increasing knowledge is evident as one moves from the rural to the semi - urban to urban respondents (Table. 9) though this does not achieve statistical significance. Table 10 suggests that the rural - urban gradient did not differ according to the gender of the respondents.

Table. 8 Knowledge about prevention of AIDS: rural - urban differential

Statement	True (%)			False (%)			Don't know (%)		
	City	Town	Village	City	Town	Village	City	Town	Village
Condom prevents AIDS	85.6	82.3	72.7	6.7	4.8	7.2	7.6	12.9	19.5
Condom prevents sexually transmitted diseases.	68.7	67.7	60.3	11.8	11.3	9.2	19.5	20.1	29.6
Total avoidance of sex is a way to prevent AIDS.	19.4	19.4	23.9	65.6	67.7	54.4	14.4	12.9	20.0

Table. 9 Scores of knowledge about prevention of AIDS: rural - urban differential

Score	City (%)	Town (%)	Village (%)	Total (%)
0	8.2	9.6	16.7	13.3
1	23.6	21.0	23.3	23.5
2	54.4	59.7	46.6	50.1
3	13.8	9.7	13.5	13.1
Total (%)	31.2	9.9	55.7	100.0

p = 0.239

Table. 10 Knowledge about prevention of AIDS: rural-urban differences by gender of respondents

Score		City (%)	Town (%)	Village (%)	Total (%)
0	(M)	0.0	0.0	3.3	1.8
	(F)	11.6	12.2	21.3	17.4
1	(M)	17.5	15.4	12.2	14.6
	(F)	26.1	22.4	27.1	26.7
2	(M)	63.2	84.6	63.3	64.0
	(F)	50.7	53.1	40.7	45.1
3	(M)	19.3	0.0	21.1	19.5
	(F)	11.6	12.2	10.9	10.8

males; p = 0.364 females; p = 0.334

Knowledge about sexually transmitted diseases.

a) general : Forty seven per cent students said that a person with sexually transmitted diseases has increased chances of having AIDS ; 33.8 per cent students think that ulcers and / pus in the genital organ and/pain on passing urine are features of sexually transmitted diseases (Table.11).

Table. 11 Knowledge about sexually transmitted diseases by gender of respondent

Statement	True (%)			False (%)			Don't know (%)		
	M	F	T	M	F	T	M	F	T
A person with sexually transmitted diseases has increased chances of having AIDS.	64.0	41.0	47.0	18.3	17.0	17.3	17.1	41.4	35.0
Ulcers and / pus in the genial organ and / pain on passing urine are some of the features of sexually transmitted diseases.	55.5	26.0	33.8	17.7	19.7	19.2	26.2	52.9	45.9

b) gender comparison : Sixty four per cent males and 41 per cent females were of the opinion that a person with sexually transmitted diseases has increased chances of having AIDS ; 55.5 per cent males and 26 per cent females said that ulcers and / pus in the genital organs and / pain on passing urine are some of the features of sexually transmitted diseases.

Gender-related differences in knowledge regarding STDs are presented in Table. 12; 18.9 per cent males and 46.6 per cent females scored zero while 38.4 per cent males and 13.7 per cent females scored 2 (highest). Thus, males had higher knowledge scores compared to females.

Table. 12 Gender differences in knowledge about sexually transmitted diseases.

Score	Male (%)	Female (%)	Total (%)
0	18.9	46.6	39.4
1	42.7	39.7	40.5
2	38.4	13.7	20.2
Total (%)	26.2	73.8	100.0

$p < 0.001$

c) rural- urban comparison (Table. 13): 49.2 per cent from the city, 45.2 per cent from the towns and 44.5 per cent from the villages said that a person with sexually transmitted diseases has increased chances of having AIDS ; 34.9 per cent from the city, 27.4 per cent from the towns and 35.1 per cent from the villages said that ulcers, and / pus in the genital organ and / pain on passing urine are some of the features of sexually transmitted diseases.

Table. 13 Knowledge about sexually transmitted diseases by place of residence

Statement	True (%)			False (%)			Don't know (%)		
	City	Town	Village	City	Town	Village	City	Town	Village
A person with sexually transmitted diseases has increased chances of having AIDS.	49.2	45.2	44.5	14.4	17.7	19.0	36.4	37.1	35.1
Ulcers and / pus in the genial organ and / pain on passing urine are some of the features of sexually transmitted diseases.	34.9	27.4	35.1	14.9	27.4	19.3	49.7	41.9	45.1

In the knowledge scores (Table. 14), 38.0, 43.5 and 39.9 per cent in the city, towns and the villages respectively scored zero (lowest) while, 22.1, 16.1 and 19.8 per cent scored 2 (highest). No rural - urban difference in knowledge scores for sexually transmitted diseases were observed.

Table. 14 Rural-urban differences in knowledge scores regarding sexually transmitted diseases:

Score	City (%)	Town (%)	Village (%)	Total (%)
0	38.0	43.5	39.9	39.4
1	40.0	40.3	40.2	40.5
2	22.1	16.1	19.8	20.2
Total (%)	31.2	9.9	55.7	100.0

p = 0.554

Attitude towards AIDS.

Table. 15 presents student responses to questions about attitude towards AIDS patient. About 10 per cent of the respondents were uncertain about their attitude towards AIDS. Roughly between a third and a half of the students associated AIDS with an immoral life style. A tenth recommended isolation of AIDS patients. More females than males believed that banning of sex work could control the spread of AIDS.

Table. 15 Attitude about AIDS and its gender differential

Statement	Agree (%)			Disagree (%)			Don't know (%)		
	M	F	T	M	F	T	M	F	T
Only those people who lead immoral life will get AIDS.	33.5	31.0	31.7	63.4	61.4	61.9	3.0	7.4	6.2
AIDS patients pay the price for their immoral life.	52.4	50.5	51.0	40.2	33.4	35.2	7.3	14.5	12.6
AIDS patients should be isolated for the safety of others.	14.0	8.2	9.8	81.7	84.2	83.5	4.3	6.9	6.2
Spread of AIDS can be controlled by banning prostitution.	64.6	76.1	73.1	30.5	13.4	17.9	4.9	10.2	8.8

There was a trend towards a more unfavourable attitude among women compared to men, but this did not reach statistical significance; $p = 0.07$ (Table. 16)

Table. 16 Gender difference in the scores of attitude towards AIDS

Score	Male (%)	Female (%)	Total (%)
0	8.0	8.5	8.3
1	20.1	28.0	25.9
2	32.9	33.0	33.0
3	26.2	23.9	24.5
4	12.8	6.7	8.3
Total (%)	26.2	73.8	100.0

p = 0.073

More of rural than urban students believed that there is association between AIDS and an immoral life style (Table 17).

Table. 17 Attitude towards AIDS: rural - urban differences.

Statement	Agree (%)			Disagree (%)			Don't know (%)		
	City	Town	Village	City	Town	Village	City	Town	Village
Only those people who lead immoral life will get AIDS.	29.7	24.2	34.2	64.1	71.0	58.9	6.2	4.8	6.6
AIDS patients pay the price for their immoral life.	49.7	51.6	52.3	41.0	32.3	31.6	8.7	12.9	15.5
AIDS patients should be isolated for the safety of others.	10.4	12.9	9.5	84.1	82.3	83.9	6.7	4.8	6.3
Spread of AIDS can be controlled by banning prostitution.	66.7	75.8	75.6	24.1	12.9	15.5	8.7	11.3	8.9

When we examined quantitative scores (summating responses to individual questions) no clear cut rural - urban difference was evident (Table 18, $p = 0.291$)

Table. 18 Attitude scale of AIDS: rural - urban differences

Score	City (%)	Town (%)	Village (%)	Total (%)
0	7.7	9.7	7.8	8.3
1	21.5	21.0	30.2	25.9
2	31.8	40.3	33.0	33.0
3	27.7	19.4	22.4	24.5
4	11.3	9.7	6.6	8.3
Total (%)	31.2	9.9	55.7	100.0

$p = 0.291$, chi square test

When we examined the variation in attitude scores of rural and urban students with respect to the gender of the respondent, a larger proportion of females had an unfavourable attitude (Table 19). However this variation was not statistically significant)

Table. 19 Attitude towards AIDS: rural - urban differences by gender of respondents

Score		City (%)	Town (%)	Village (%)	Total (%)
0	(M)	5.3	7.7	10.0	7.9
	(F)	8.7	10.2	7.0	8.5
1	(M)	17.5	7.7	23.3	20.1
	(F)	23.2	24.5	32.6	28.0
2	(M)	36.8	53.8	27.8	32.9
	(F)	29.7	36.7	34.8	33.0
3	(M)	24.6	7.7	28.9	26.2
	(F)	29.0	22.4	20.2	23.9
4	(M)	15.8	23.1	10.0	12.8
	(F)	9.4	6.2	5.4	6.7

males; p = 0.551, female; p = 0.331

Communication about sexual matters :

a) General : Table 20 suggests that respondents discussed sexuality most often with their friends(65 per cent) About a tenth discussed with their parents while 15% chose a sibling for discussion. A striking observation was that over a third of females did not discuss sexuality with anyone.

Table. 20 Gender associated differences in communication about sex.

Statement	Yes (%)			No (%)		
	M	F	T	M	F	T
I discuss about sexual matters with my friends.	88.4	56.6	65.0	11.0	43.4	34.9
I discuss about sexual matters with my father / mother.	7.3	10.2	9.4	92.7	89.2	90.1
I discuss about sexual matters with my brother / sister.	15.2	16.1	15.8	83.0	83.1	83.0

Students from rural and semi - urban areas communicated less often regarding sexual matters compared to their urban counterparts (Table 21).

. Table. 21 Variation in communication about sex by place of residence of respondent.

Statement	Yes (%)			No (%)		
	City	Town	Village	City	Town	Village
I discuss about sexual matters with my friends.	71.3	61.3	61.8	28.2	38.7	38.2
I discuss about sexual matters with my father / mother.	12.8	8.1	6.6	86.7	88.7	93.1
I discuss about sexual maters with my brother / sister.	20.0	14.5	12.9	78.5	83.9	86.5

When we evaluated this variation in communication about sexuality among urban and rural respondents according to the gender of the respondent, we observed striking differences (Table 22). Women in rural areas communicated quite infrequently regarding sexual matters ($p = 0.006$). No such rural - urban differences were observed for men ($p = 0.52$)

Table. 22 Communication about sex: rural - urban differences by gender of respondents

Score	City (%)	Town (%)	Village (%)	Total (%)
0 (M)	10.5	7.7	8.9	9.8
(F)	30.4	44.9	43.8	39.5
1 (M)	71.9	69.2	76.7	73.8
(F)	46.4	38.8	44.2	43.6
2 (M)	15.8	7.7	10.0	12.2
(F)	13.8	14.3	8.9	11.5
3 (M)	1.8	15.4	4.4	4.3
(F)	8.4	2.1	3.1	5.4

males, p = 0.526; females, p = 0.006 ; chi square test

Attitude towards sex :

Only a third of students believed that masturbation was not harmful to health (Table 23). A majority believed that sex education should be made part of educational curriculum. Again, a majority believed that one should wait until marriage to have sex. A third of the students believed that only abnormal people would involve in homosexual activity. A fifth of the students believed that a person could have sex with another if they loved each other, while only a tenth of the students agreed that they did not mind marrying a person who had premarital sex.

Table. 23 Gender differences in attitude towards sex.

Statement	Agree (%)			Disagree (%)		Don't know (%)			
	M	F	T	M	F	T	M	F	T
Masturbation is harmful to health	27.4	34.9	33.0	51.2	15.4	24.8	21.4	48.7	41.6
Sex education should be made part of curriculum.	91.5	79.0	82.2	6.0	6.9	6.7	2.4	13.2	10.4
Only abnormal people involve in homosexual activity.	41.5	28.0	31.5	42.1	18.0	24.3	16.5	52.5	43.0
One should wait until marriage to have sex.	59.8	87.6	80.3	31.7	4.6	11.7	8.5	7.6	7.8
A person can have sex with another if they love each other.	38.4	12.4	19.2	51.8	71.4	66.2	9.8	15.4	13.9
I don't mind marrying a person who had sex before marriage	22.6	8.2	12.0	62.4	77.9	73.9	14.0	13.0	13.3

When we examined the attitudes towards masturbation (Table 23), striking differences appeared between males and females. While over half the males believed that masturbation is not

harmful to health, only 15 per cent of the females believed so. Marrying a person with premarital sexual experience was acceptable to a larger proportion of males compared to females (Table 23).

Attitude towards sex varied according to the place of residence of the respondent (Table 24). A greater proportion of students residing in rural areas associated masturbation with adverse health consequences and homosexuality with behavioural abnormality. A smaller proportion viewed premarital sex favourably in the rural areas.

Table. 24 Attitude about sex: rural - urban differences

Statement	Agree (%)			Disagree (%)			Don't know (%)		
	City	Town	Village	City	Town	Village	City	Town	Villag
Masturbation is harmful to health	26.7	33.9	36.2	30.3	25.8	21.3	43.1	38.7	42.2
Sex education should be made part of curriculum.	79.5	83.9	83.0	8.7	4.8	6.3	11.3	11.3	10.3
Only abnormal people involve in homosexual activity..	28.2	38.7	31.0	31.3	32.3	19.5	39.5	27.4	48.9
One should wait until marriage to have sex	76.4	82.3	81.9	14.9	11.3	10.1	8.7	6.5	8.0
A person can have sex with another if they love each other.	25.6	14.5	17.2	58.0	75.8	68.7	15.9	8.0	13.8

Gender differences in attitudes towards sex varied according to the place of residence of the respondents (Table 25). Attitude towards sex were particularly unfavourable among women students residing in rural areas.

Table. 25 Attitude towards sexuality: rural - urban differences by gender of respondents

Score		City (%)	Town (%)	Village (%)	Total (%)
0	(M)	2	0	0	1.2
	(F)	0.7	2.0	2.3	2.0
1	(M)	1.8	0	1.1	1.2
	(F)	7.2	4.1	12.4	9.8
2	(M)	10.5	23.1	3.3	7.9
	(F)	22.5	26.5	28.7	
3	(M)	15.8	7.7	25.6	20.7
	(F)	31.9	30.6	28.7	29.5
4	(M)	19.3	23.1	33.3	27.4
	(F)	18.1	22.4	17.4	18.2
5	(M)	49.1	46.2	36.7	41.5
	(F)	19.6	14.2	10.5	14.3

males; p = 0.202, females; p = 0.116

Attitude towards gender equality.

About a quarter of the respondents held the female sex as being more responsible for prostitution (Table 26). A very small proportion viewed pre - marital sex favourably for men compared to women.

Table. 26 Attitude towards gender equality.

Statement	Agree (%)			Disagree (%)			Don't know (%)		
	M	F	T	M	F	T	M	F	T
Women are more responsible than men for prostitution	37.8	21.0	25.3	49.4	53.6	52.5	13.4	24.9	21.9
A man can have premarital sex, but a women should not.	9.1	3.3	4.8	81.1	80.5	80.6	9.1	15.6	13.9
It is better for men to have sexual experience before marriage.	19.5	4.1	8.2	64.6	80.7	76.5	14.0	13.9	13.9

There was not much variation in the attitude towards gender equality with respect to the place of residence in sex - pooled analyses (Table 27). Only slightly more than half of the students believed that women are not more responsible than men for prostitution. A very high percentage did not agree with giving social acceptance to premarital sex by men and not for women. Students generally did not agree to the statement that it is better for men to have pre - marital sexual experience before marriage, though there is a higher percentage in the city agreeing with it. When we stratified variation in attitude towards gender equality with place of residence by the gender of the respondent (table. 28), interesting findings emerged. Whereas there was little difference in attitudes of males residing in urban and rural areas ($p = 0.347$) females living in the rural areas had an unfavourable attitude towards gender equality in comparison to their urban counterparts ($p = 0.011$)

Table. 27 Attitude towards gender equality: rural - urban differential

Statement	Agree (%)			Disagree (%)			Don't know (%)		
	City	Town	Village	City	Town	Village	City	Town	Village
Women are more responsible than men for prostitution	23.1	29.0	26.1	55.4	62.9	48.3	21.5	8.0	25.3
A man can have premarital sex, but a women should not.	3.6	4.8	5.5	82.1	83.9	79.0	14.4	8.1	15.2
It is better for men to have sexual experience before marriage.	10.8	9.7	6.6	75.9	69.4	77.9	12.8	19.4	13.8

Table. 28 attitude about gender equality : rural-urban differences by gender of respondents

Score		City (%)	Town (%)	Village (%)	Total (%)
0	(M)	14.0	7.7	7.8	9.8
	(F)	4.3	6.1	7.4	6.3
1	(M)	8.8	7.7	14.4	11.6
	(F)	12.3	16.3	15.1	14.1
2	(M)	31.6	30.8	38.9	34.8
	(F)	30.4	30.6	34.9	33.2
3	(M)	40.4	38.5	35.6	39.0
	(F)	47.8	42.9	41.5	43.2
4	(M)	5.2	15.3	3.3	4.9
	(F)	5.1	4.1	1.1	3.3

males, p = 0.347; females, p = 0.011

Multivariate analyses

The results of the multivariate analyses for the dependent variables, knowledge scores and attitude scores are presented in Tables 29 and 30.

Table. 29 Multi variable linear regression of knowledge on select predictor variables.

Variable in order of entry	Regression coefficient β	t	P Value
Constant	9.03		
Sex	-1.71	-8.25	<0.0001
Urban residence	0.486	2.48	0.013

Variables not in model = religion, subject stream, socioeconomic status, residence in town or rural area.

As is evident from Table 29, the gender of the student and his/her place of residence emerged as important determinants of the overall knowledge score of the student. Specifically, male sex and residence in an urban area were associated with higher knowledge scores. Religion, socioeconomic status and the specific subject stream in which the student was enrolled were not significantly associated with knowledge scores in these multivariate models.

Table. 30 Multivarable linear regression of attitude score on Independent variables.

Variable in order of entry	Regeression coefficient β	t	P Value
Constant	4.02		
Urban residence	0.344	2.44	0.015
Religion	0.34	2.13	0.033

Variables not in model = sex, subject stream, socioeconomic status, residence in town or rural area.

Table 30 suggests that the place of residence of the student and his / her religion significantly influenced the attitude of a student towards AIDS and related sexuality and gender issues. Specifically residence in an urban area and Christianity were associated with higher attitude scores. The gender of the student, the subject stream or socioeconomic position were not significantly associated with attitude scores in these multivariate models.

RESULTS AT A GLANCE

CATEGORY	GENDER DIFFERENCE	RURAL-URBAN DIFFERENCE	
		MEN	WOMEN
A. Knowledge			
1. Knowledge about AIDS	+, males > females	–	+, urban>rural
2. Knowledge about AIDS prevention	+, males>females	–	–
3. Knowledge about STDs	+, males>females	–	–
B. Attitudes			
1. Attitude towards AIDS	+, males>females	–	–
2. Attitude towards sexuality	+, males>females	–	–
3. Attitude towards gender equality	–	–	+, urban >rural
C. Communication			
About sex	+ve males>females	–	+, urban> rural

FOCUS GROUP DISCUSSIONS

F. Focus group discussions

Knowledge and attitude regarding AIDS and STDs among females

The female group said that the first thing coming into their minds when they heard the word AIDS was sexual relations. They considered AIDS as a dreadful disease. Even when they shared a glass of water, there were comments about AIDS, though as jokes. Serious discussion about AIDS was there only among very close friends and it was not a topic of general discussion. The sources of their information included all media and awareness programmes. They accused that there was not even a single teacher who wanted to discuss about AIDS. They believed that AIDS was spreading due to pre-marital and extra-marital relations. They considered AIDS as a real problem as there was no cure for it.

They were concerned about the people who got the disease as such victims of disease would be isolated. They believed that boys were more likely to get AIDS than girls. They were aware that condoms could prevent AIDS, but they did not know how condoms really prevent the disease. Also they doubted whether condom was hundred per cent safe. They had heard of venereal diseases, but were unable to name even one. They had a special class on AIDS organised by the college authorities in which a medical doctor spoke. They said that they could not enjoy the class because it was not an interactive session and they did not get chance to clear their doubts. They had heard of an ELISA test. They did not remember the name of Western Blot test, but they knew that there was a costly confirmation test. They had read about Mr. Majid, who had claimed to have discovered a medicine against AIDS.

Female attitude towards sexuality

One student believed that there were plenty of women with extra-marital sex. She questioned the belief of the people that sex is something bad which has to be hidden. For people sex is 'sacred', she added.

None of them had ever seen a sex worker, but they had heard that there were women who came to the city who were available for sex. They believed that both the sexes were equally responsible for sex work. They also believed that laws could not abolish sex work. They believed that women involved in sex work as a means of livelihood or after being subjected to rape. After rape, they would feel that anyway they had lost their 'purity' and there would be no one willing to marry them and that this could lead them to sex work.

They believed that premarital sex was prevalent among college students. In their opinion, most of the love affairs in colleges led to sex. Such sex, they believed, was always planned by the boys, but accidental for the girls. Girls would not be able to protect themselves using condoms as they couldn't get condoms. The stigma attached to condoms also made it impossible for them to acquire condoms. No girl dared to go and buy condoms from a shop. Also, girls were not able to ask the boy to buy it. Even men were shy to buy it. It should be the responsibility of the boys to buy condoms and hence, boys are responsible for the sex without condoms, the group maintained.

They believed that atleast one in hundred girls had lesbian relations. They thought, it was a deviant behaviour and hence a behavioural abnormality. They did not think that it required medical intervention. They also did not know whether lesbian relations could cause AIDS. They felt that masturbation was prevalent among girls. One girl said that the prevalence ranged upto 90%. Another

girl contradicted it and she said it would be around 25%. They said that there were discussions about masturbation among themselves.

Knowledge and attitude towards AIDS among males. Male students considered AIDS as a dreadful disease and they thought that there was no way out if someone got AIDS. They had heard from different sources that the growth in the number of AIDS patients in India and Kerala is very fast. The official statistics is only an under estimate of the real situation.

One of the boys said that he had heard of tourists from abroad, especially from Mali, who were tested positive for AIDS. Once they came to know that they were HIV positive, they just escaped and nobody could trace them. They would have given AIDS to numerous people.

Regarding the prevention of AIDS, they said that one should take care of oneself by using condoms during sexual intercourse. One has to be careful when one gets an injection, they believed. They were afraid of using even disposable syringes as they had read in news papers about recycling of used syringes and needles. They were afraid even to donate blood in the Medical college hospital - the biggest hospital in the district- as there was a popular belief that blood donation at government hospitals is not at all safe. They believed that there was no guarantee that government hospitals observed safety precautions.

These students had never had a class on AIDS in their college. They expressed their desire to have classes which could clear their doubts. They said there were no serious discussions about AIDS among themselves, but often it was the topic for jokes. They did not discuss about AIDS because it was not an issue in their day-to-day life. When some news about AIDS appeared in the media, they had some fear for a few days following it.

There was one student who had his schooling in a Gulf country. He had once met a Gulf national who had AIDS. If it were a foreign citizen he would have been deported the moment he was found to be HIV positive, he added. Before being detected as HIV positive, he had persistent headache for which he had medical consultation which led to the detection of the disease. The group also believed that there were some general symptoms for AIDS which included fever, nausea, vomiting, and loss of appetite. These symptoms would gradually increase and peak in six months.

If one of their friends got AIDS, they would definitely have sympathy towards him. They would never say that he deserved it as it was not a moral issue alone. One could get AIDS through blood transfusion and injection needles. However, they would not mingle with him as before. They would try to avoid his company mainly because of the social stigma. Though they knew that sharing of food with him would not give them AIDS, they would not dare to do so.

The student who came from Gulf country had doubted whether AIDS was a disease itself or just a temporary situation where the immunity was decreased. He believed that there was medicine against AIDS in Ayurveda (Indigenous system of medicine in India). He knew personally an Ayurveda physician who could treat AIDS. "He had cured a lot of patients including one from U.S whose blood had become negative", the student said. He said he was not afraid of the disease because he knew the Ayurveda doctor. Half of the group disagreed with this argument. Some of the students believed that Ayurveda medicines could cure AIDS if it was detected in the in the early stages. They knew that AIDS was a group of diseases coming later in a person with HIV infection and that the cause of death can be any disease.

All of them were aware of the modes of transmission of AIDS. They said the prevalence of AIDS could be from less than 10% to more than 20%. They also believed that there were a lot of

unknown cases in Kerala. "The disease is spread by the lorry and truck drivers, people returning from abroad and the slum dwellers in the cities", they said. The students did not have a clear idea about STDs. They didn't know the symptoms of STDs or that they could be prevented by using condoms. If someone had sex without condom and has suspicion of AIDS, he/she would be scared to submit to blood testing. If the person has tested and found to be positive he/she had better contacted a doctor.

Male attitude towards sexuality

The boys believed that it was males who involved in premarital sex more than females. They knew that there were sex workers at the bus stands and in hotels. They said they were not indulging in commercial sex as they could have it inside their love affairs itself. Fear of AIDS was another reason for avoiding sex with sex workers. They said they were afraid of parental disapproval and this was an additional deterrent for commercial sex.

Even though the age of marriage for men in Kerala had gone up, men could wait for sex until marriage. "Premarital sex is not a necessity for men. Even without premarital sexual experience, men could enter into married life and enjoy sex. Though, till the age of 23 to 24 years, men have high sexual desire. This will gradually decline after 25 years". This was told by one of the students and the rest of the students agreed with him. They believed that they could ask girls about premarital sex before fixing marriage. But they didn't expect their future wives to ask this question back to them. "Males are dominant in this society" they said.

The estimated proportion of students who go to sex workers ranged from 0.5% to 5%. They had seen so many commercial sex workers. They said that sex workers could be recognised easily by their appearance, dressings, costumes, gestures and attention seeking behaviour. They believed that

efforts to promote tourism had increased commercial sex. "Tourists are unpredictable as far as AIDS is concerned" they said. Premarital sex with relatives like cousins was prevalent but not very common due to very strong family bonds.

Some of the students believed that homosexual relations were more frequent among girls. They had this information from pornography books. They believed that homosexuality was an aberrant behaviour. They estimated that the prevalence of homosexuality among male students could be a maximum of 2 per 100. It might be a little higher among girls. Masturbation is a normal phenomenon but too much of it could lead to problems like weight loss, impotence and infertility in the future years. 'Too much', according to them was upto 3-4 times a day. They believed that while 99% of the boys masturbated, fewer girls did so (60-70%)..

They said, they had a lot of misconceptions about sex while they were in high school classes. Later when they joined the college they obtained more information. Even at this stage, they said, they had a lot of doubts. One student expressed the doubt whether boys also had some kind of virginity which could be lost by premarital sex.

None of them would marry a girl who had sex before marriage. "If it was known after marriage, nothing can be done and it has to be accepted as fate". A third of the students said that they would admit to the partner if they had premarital sex. They said that now a days marriage is a risky affair because the partner could have AIDS. But they did not think it practical to undergo blood testing before marriage. "There is not even time to see girls, then where is the time for testing blood? It is parents who select and fix marriages" - one of the boys commented. Another boy said that AIDS alone was not the problem. One could develop any disease after marriage also. Developing AIDS was like developing any other disease.

They would not marry an HIV positive girl in any case. If it was known after marriage they could only regret. "Someone who comes to know that he/she had AIDS could also lead a normal life provided he/she had confidence. There are cancer patients who live normal lives. Some people might think that, anyway, they had AIDS and so they would enjoy their lives to the fullest. This would lead to their mingling with lot of others which could cause spread of AIDS".

DISCUSSION

F. Discussion

A very important finding of the study was that hundred percent of the study sample i.e. the third year degree students of Thiruvananthapuram district had already heard of AIDS. As found in many other studies the media had a very important role in disseminating the knowledge about AIDS. A very high proportion of the students had access to news papers, television, radio and magazines.. Another relevant finding is that in a State where hundred per cent students had heard about AIDS, only 37.9 per cent students obtained such information from the AIDS awareness programmes. This suggests that in spite of the high literacy and educational status of the people, the communication about AIDS inside families, educational institutions and between families is very low. This would also mean that there is no communication about AIDS between generations. The most likely explanation for this observation is that AIDS is a sexually transmitted disease and anything connected to sex is not spoken about freely within Indian families due to stigma attached to the word 'sex' itself.

Another important finding in the study was that most of the students knew that AIDS is spread through sexual intercourse. This knowledge is encouraging as the major route of transmission of AIDS in India is heterosexual intercourse. Students were also aware of the other common modes of transmission. This could be due to the propaganda by the AIDS cell and by the government. But, when the questions were not direct students got confused. Though a very good majority (81.6 per cent) believed that a woman can get AIDS from her husband, only a third of the students knew that one could get AIDS by having sex with a person whom one knows very well. This says that the the message that one can get AIDS from one's own partner has reached the public while the attempts to

make people aware that anyone is susceptible to AIDS have not been successful. It is to be understood that students are not aware of the silent and slow nature of the disease.

A substantial proportion of students had some misconceptions about AIDS. The areas where maximum misconceptions were observed were the questions on risk of getting AIDS by donating blood and the curability of the disease . Regarding the knowledge that AIDS is not curable and that sex with someone whom one knows very well can also cause AIDS, males fared better than females. Both sexes were equally misinformed about the question whether a person could get AIDS by donating AIDS in a blood bank.

When knowledge scales were compared, the better performance of males was apparent. Regarding the knowledge and misconceptions about the spread of AIDS, students from urban areas fared better than those from rural areas, the differences in knowledge being particularly exaggerated among females. This can be explained by the lesser freedom enjoyed by females compared to males.

Knowledge about prevention of AIDS

The percentage of students who knew that condom prevents AIDS was much higher (78.1) than the percentage that knew that condom prevents STDs (63.4). Only a fifth of the students knew that abstinence is a way to prevent AIDS. About the knowledge of prevention of AIDS also , there was wide gap between the two sexes with the males demonstrating higher scores. Though, generally students from rural areas demonstrated lower knowledge scores, awareness of the potential role of abstinence in AIDS prevention seemed to be higher in this group in comparison to their urban colleagues.

Knowledge about STDs

Less than 50 per cent students knew that a person with an STD has an increased chance of acquiring AIDS and a still smaller percentage (33.8) was aware of the common symptoms of STDs. There was gender gap in this knowledge and male students demonstrated higher knowledge scores. There were no significant differences in knowledge about STDs among rural and urban students.

Attitude towards AIDS

In our survey only 57.4 per cent students were aware of that fact that almost everybody is at risk of contracting AIDS. The rural - urban difference was negligible. Attitude about AIDS was intermingled with individual concepts of sexual morality. A vast majority of the students (83.5%) were against isolating AIDS patients for others' safety. Another feature was the popular belief (73.1%) that AIDS can be controlled by banning prostitution. Important rural-urban difference emerged in our survey. More of rural students were linking AIDS to morality than urban students. The high percentage (61.9) students disagreeing with the statement that only immoral people will get AIDS does not necessarily mean that students are against linking AIDS with morality. It is clear from the lesser percentage (35.2) disagreeing with the statement that AIDS patients pay the price for their immoral lives. This probably means that students attribute importance to other modes of transmission of AIDS than sexual route. This means that there is a clear tendency to link AIDS with morality. The majority of them considered AIDS as a consequence of deviation from a 'moral' life. But, students were sympathetic to patients and hence vast majority were against isolating AIDS patients from the society. This is also the reflection of the values of the society. There was a trend towards a more favourable attitude towards AIDS among male respondents . However , no urban - rural differences were there in the attitudes towards AIDS .

Communication about sexual matters

Discussion about sexual matters among friends was fairly common. In comparison, such discussions with parents were rare. More males than females communicated with their friends about sexual matters, while more females communicated with family members compared to males. The communication scores also shows the same trend . A rural - urban difference in communication about sexual matters was noted among women in the sample but not among men . Women in rural areas communicated less often regarding sexuality in comparison to their urban counterparts .

Attitude towards sex

A great majority of students had misinformation about masturbation and homosexuality. Only less than a fourth knew that masturbation was not harmful to health. Likewise, the vast majority believed that only abnormal people involved in homosexual activity. When it came to the case of sex, morality once again came up. More than a three fourth of the students believed that one should wait until marriage to have sex and only less than one fifth agreed that one could have sex with another if they loved each other. More than 80 per cent wanted sex education to be included in the curriculum. This shows a clearly positive attitude towards sex education in spite of the misconceptions about sexuality.

Significant male female differences were noted regarding perceptions on health effects of masturbation , having sex with a lover or prior to marriage and the inclusion of sex education in the curriculum . More males (compared to females) favoured the introduction of sex education in the curriculum , accepted sex with a lover prior to marriage and did not associate masturbation with adverse health consequences .

When it comes to the rural - urban differential, similar trends as in the previous cases were seen. Regarding masturbation and homosexuality, urban students responded more favourably than the rural students though the gap was narrow. For sex education, rural students responded slightly more favourably than the urban. To the questions like waiting for sex until marriage, having sex between lovers and marrying a person who had premarital sex, students from the villages had ideas supported by morality. Among males, urban males had more favourable attitude than their rural counterparts. Among female students also the same trend is found.

Attitude towards gender equality and sex

Just above 50 per cent students disagreed with the statement that women are more responsible than men for commercial sex work, only less than five per cent students agreed to the statement that a man can have premarital sex but a woman should not, and only less than 10 per cent believed that it was better for men to have sexual experience before marriage. A third among males and only a fifth among females are agreeing with statement that women are more responsible than men for sex work. A very high percentage (more than 80) of males and females disagree with the statement that a man can have premarital sex but a woman should not. This once again is the manifestation of the moral values in the society .

When it comes to the case of rural - urban difference, more of rural students than urban believed that women were more responsible than men for prostitution. In the case of justifying pre - marital sex of men, students generally disagree irrespective of the place of residence. In the case of advocating pre - marital sex for men, similar percentages from the rural and urban areas are against. While there were no significant rural-urban differences in attitudes towards gender equality in sex-

results of sex-stratified analyses suggested that rural women (but not men) have a more unfavourable attitude towards gender equality compared to their urban counterparts.

Why do the gender and the place of residence affect the knowledge of the student ?

There are some possible explanations for the gender differences in knowledge. In the cultural milieu of Kerala, males enjoy more social freedom than females. This is true in the case of students also. Girls, especially after attaining puberty, are subjected to many social restrictions while boys of the same age enjoy a lot of freedom. For girls, the social interaction especially with the males is restricted both inside and outside the house. The girls are socialised to suppress their desires. These social restrictions are more in the villages than in the cities. Due to these restrictions, even the mobility and interaction with the same sex itself is affected. The access to various sources of information and thus exposure to information is less for females and students living in the rural areas. Most of the good schools and colleges are concentrated in the urban areas. The access to modern facilities and amenities including the media are also better in the urban areas. The awareness and education programmes organised by different agencies are usually concentrated in the urban areas. Moreover, superstitions and beliefs without any scientific backing will be more in rural areas. These factors might be the reasons for male sex and urban residence being associated with higher knowledge scores.

The religion of the student and the place of residence were found to be factors influencing his/her attitude towards AIDS, sexuality and gender. Residence in urban area and Christianity were associated with higher attitude scores. These findings could also be due to the sociocultural situation of Kerala. The increased access to scientific information in urban areas has been discussed above. The concentration of awareness programmes in urban areas could be another reason for the higher

attitude scores in urban students. The desirable attitude especially towards a new disease can be inculcated easily in an urban area than a rural due to these reasons. The association of Christianity with a more favourable attitude was an interesting finding. This can be due to the specialties the Christians enjoy as a religion. It was the Christian Missionaries who had laid the foundation stone for the educational achievements and high literacy in Kerala State. The strong religious bonds among Christians and their attachment to the church serve as a means for propagation of information and desirable attitudes in the society. Christians are supposed to adhere to the rules and customs laid down by the church and thus tend to be more disciplined. Christianity being a global religion, its general policies and decisions are centralised in Rome and the Christians in any part of the world are to adhere to these policies. Thus the international policies regarding any social issue reach every Christian family. The churches also have regular classes (Sunday classes) for students to teach them the religion. In the Sunday classes the students get chance to interact with the opposite sex. Inside and between families, the interaction between members is high in Christian community as there are several occasion for get together like festivals and ceremonies. The females in Christian community enjoy more freedom than their counterparts in any other community.

IMPLICATIONS

G. Implications

It seems likely that the country will by the year 2000 have the largest number of HIV-infected persons in any single country. The impact of HIV/AIDS in India will be severe and require enormous efforts from all sectors. The target of the awareness programmes has to be the people of the reproductive age group in general and the youth in particular. The easiest way to approach the youth is through the educational institutions and through media. Our investigation revealed that whereas the access of the students to mass media was high, there were substantial misconceptions. This underscores the need to study the reasons why the media has failed to educate the public in specific areas.

In their attempts to create awareness in the society, the AIDS cells in most of the States had trained school and college teachers spending huge amounts of money, hoping that the teachers will in turn teach the students about AIDS. In Kerala also there were extensive training programmes for teachers. Our study highlights the limited role of teachers in the dissemination of knowledge about AIDS, STD and sexuality. Evaluation studies may help us understand better this suboptimal performance of teachers in imparting knowledge about AIDS. We also observed in our study the suboptimal performance of physicians in knowledge dissemination. The relative failure of these two sections viz., teachers and doctors to disseminate the knowledge into the community strongly indicates that the problem is of a general nature and suggests that a 'top-down' approach may not achieve adequate results.

Sexual abstinence, highlighted in Indian culture has not been promoted seriously as part of AIDS prevention campaigns. Culturally appropriate and culturally sensitive AIDS prevention programmes have to be started. Routine production of communication materials without paying

attention to utilization, field tests, and evaluation is ineffective.Influencing health behaviour requires decentralisation of methods along with their adaptation to local cultures and customs. IEC remains just another label of mass communication with posters, advertisements, brochures, radio, and television. A new approach demands a priority for communication skills taking into account the people's aspirations. The HIV/AIDS crisis underlines the urgency with which health communication has to respond to health challenges.

The students' unwillingness to donate blood for fear of contracting AIDS has implications as far as India is concerned. It is the students and the youth who voluntarily donate blood in blood banks. They are suspicious about government blood banks especially those operating from the medical colleges. Students admitted that they used to avoid donating blood especially in the government hospitals. This means that the propaganda about safety precautions to be observed for blood transfusion has confused the public. People have to be convinced about the strict safety and universal precautions observed in all the blood banks. (Now, blood banks are strictly monitored and supervised by the AIDS cell and only those blood banks which satisfy the specifications laid down by the AIDS cell can function in the state. Only compact single piece transfusion sets are used in blood banks which cannot be reused).

The misconceptions about masturbation and homosexuality among students merits attention. These findings once again strengthen the arguments for incorporating sex education into the formal curriculum. As a vast majority of the students want sex education to be included in their formal curriculum, there should be attempts to fulfill it.

The earlier belief that AIDS was a problem of female sex workers and their clients resulted in the prevention efforts being confined to them . Programs to provide prostitutes with condoms met

with some success in a few parts of the country. The AIDS epidemic contributed to the increased use of condoms in most of the western countries, condom use has substantially increased though not necessarily on a regular basis[11].

LIMITATIONS

H. Limitations .

In the sample, male students constituted only 26 per cent. When asked about the lesser proportion of the male students, different answers were obtained from students and college authorities. One explanation was that the female students used to score higher marks in the qualifying examination and hence they became the majority at this level of education. Another reason was that the managements of the private colleges tried to minimise the number of male students as they were considered as 'potential breakers' of the law and order situation in the campuses.

There is rapid urbanisation in Kerala especially in the capital district of Thiruvananthapuram where we conducted the study. All the villages in the study area had the facilities like roads, public transports, telephone facilities, televisions etc. Because of these factors, the interaction between the rural and the urban community is high. Thus the classification of students into rural and urban might not be as distinct as elsewhere in the country. The students staying in college hostels, similar institutions and those who did not write where they were staying constituted 3.2 per cent and they were excluded from the study.

The absenteeism in classes was as high as 25 to 50 per cent. Drop out was due to different reasons. There was a general trend among students in most of the colleges not to attend the classes. The final year degree students were having their third and last term of the course and that could be another reason for absenteeism. A considerable percentage of students, especially from science subjects, had discontinued at some point during the course as they had got admission to professional colleges or better courses and the seats remained vacant for the remaining period of the course. Another feature was that that a large proportion of the students had private tuition at teachers' houses or parallel colleges. According to a professor in a college, "students were coming to colleges

for socialisation, entertainment and extra - curricular activities; they had their curricular activities elsewhere.

There were twenty one colleges and more than five thousand third year degree students in the district. There were colleges under both government and private sectors. In the government colleges, the admissions were based on strict merit and observing the communal reservation pattern provided by the constitution. But in the private colleges merit alone is not the criteria for selection. Influence on the management or belonging to the community which runs the college might be a short cut for admission. Here the communal reservation pattern could also be altered. More over, most of the private colleges are run by religious institutions. In Kerala, there are numerous religions, castes and sub-castes. The cultures and belief systems of each group is different from the other. The knowledge, attitude and behaviour of the students can influenced by the style of functioning of the management of the college. This means that each college can be different from another one as far as Kerala is concerned. We do not know for sure whether the colleges which were not taken in our study would have shown a different picture, in spite of the scientific way of multi stage stratified sampling method we had adhered to.

Survey was conducted by giving questionnaires to students who were sitting in the class rooms. The absenteeism was from 25 - 50 per cent in the classes. We do not know all the reasons for this absenteeism and also have no idea about the characteristics of those who kept away from classes. We also do not know whether their knowledge and attitude towards AIDS and related issues are different. The survey was done only among the students who were present in the classes. Though the students were briefed before the interview and allowed to ask doubts during the interview, the students were supposed to answer the questions sitting in the class room itself. We do

not know whether this influenced the responses. Answers pertaining to personal matters especially like sex can be modified when students sit in a group. Though there were multiple options for the questions (like true / false, agree / disagree, don't know etc.), we do not know whether the answers given by the students truly represent their knowledge or their attitude and what percentage might have marked the right answer without knowing it. The presence of friends and in some cases teachers in the class might have influenced the students.

CONCLUSION

I. Conclusion:

In our large survey of college students, awareness of AIDS among the college students is very high. The students were well aware of the general modes of transmission. There were some misconceptions about the spread of AIDS. In comparison, the awareness about sexually transmitted diseases was very low. The awareness about methods of prevention of HIV and STDs was also not high. The communication about sex and hence about AIDS was poor within families and in educational institutions. The attitude towards AIDS was entangled with the concepts of moral values. Students linked AIDS to moral aspects especially of sex. There were many misconceptions about sex and sexuality. There was clear gender and rural - urban differentials in the knowledge and attitude. The knowledge and favourable attitude was high in male students compared to females and in urban students compared to rural. Our investigation underscores the need to target women and rural areas in the efforts to disseminate knowledge of AIDS, STD and sexuality.

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APPENDIX

ACHUTHA MENON CENTRE FOR HEALTH SCIENCES STUDIES
(SREE CHITRA TIRUNAL INSTITUTE FOR MEDICAL SCIENCE AND TECHNOLOGY)
THIRUVANANTHAPURAM. KERALA. 695011
JANUARY.1998

This is a questionnaire to study the knowledge and attitude about AIDS among the **3rd year B.A, B.Sc and B.Com** students of **Thiruvananthapuram** district. This is being done as part of the thesis work of Dr. S. S. Lal, MPH student, **SCTIMST,** Thiruvananthapuram, Kerala, India.

This contains a questionnaire to be filled in by you. You **don't have to write your name.** The information in the individual sheets will be kept **confidential**.

Draw a circle over the answer to indicate your response (in all the pages).

1. Sex : male / female
2. Age in years : 18 / 19 / 20 / 21 / 22 / above 22
3. Marital status : single / married
4. Place of residence : city / town / village / college hostel / others
5. Subject : arts / science / commerce
6. Religion : Hindu / Muslim / Christian / others
7. Head of your family : Father / mother / uncle / brother / sister / any other
8. Education of father : nil / 7th standard / SSLC / predegree / degree / PG / professional course
9. Occupation of father : unskilled worker / skilled worker / petty shop / business / professional / agricultural worker / agricultural cultivator / government servant / others
10. Father working : inside Kerala / outside Kerala, but in India / abroad
11. Education of mother : nil / 7th standard / SSLC / predegree / degree / PG / professional course
12. Occupation of mother : unskilled worker / skilled worker / petty shop / business / professional / housewife / agricultural worker / agricultural cultivator / government servant / others
13. Mother working : inside Kerala / outside Kerala, but in India / abroad
14. You have at your home : radio / TV / VCR / phone / fridge / bicycle / scooter / bike / car
15. Your house is : thatched / tiled / terraced single storey / terraced double storey

PART.1

Section. A

1. Have you heard about an illness named AIDS ? yes / no

If the answer is yes,

a) you heard about AIDS : today / during last 1-2 years / more than 2 years ago / don't remember

b) your knowledge about AIDS is from: news papers / magazines / radio / TV / friends / teachers / parents / brothers / sisters / neighbours / awareness programmes / any other

Section. B

1. AIDS can spread through toilets and bath rooms. xxxxxxxxxxxxx true / false / don't know
2. AIDS can spread through sexual intercourse. xxxxxxxxxxxxxxxx true / false / don't know
3. A person can get AIDS by donating blood in a blood bank. xxxxx true / false / don't know
4. AIDS can spread from pregnant mother to child. xxxxxxxxxxxx true / false / don't know
5. AIDS can spread through mosquito bite. xxxxxxxxxxxxxxxxxxx true / false / don't know
6. AIDS is a curable disease if diagnosed in the early stages. xxxxx true / false / don't know
7. A woman can not get AIDS from her husband. xxxxxxxxxxxxx true / false / don't know
8. Sex with a person whom you know very well can also cause AIDS. true / false / don't know

Section. C

1. Condom prevents AIDS. xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx true / false / don't know
2. Condom prevents sexually transmitted diseases. xxxxxxxxxxxxxx true / false / don't know
3. Total avoidance of sex (abstinence) is a way to prevent AIDS. true / false / don't know

Section. D

1. A person with sexually transmitted diseases has increased chances of having AIDS.

   yes / no / don't know

2. Ulcers and / pus in the genital organ and / pain on passing urine are some of the features of sexually transmitted diseases yes / no / don't know

PART. 2

section. A

1. Only those people who lead immoral life will get AIDS xxxx agree / disagree / don't know
2. AIDS patients pay the price for their immoral life. xxxxxxxxx agree / disagree / don't know
3. AIDS patients should be isolated for the safety of others. xxx agree / disagree / don't know
4. Spread of AIDS can be controlled by banning prostitution. xxx agree / disagree / don't know

Section. B

1. I discuss about sexual matters with my friends. xxxxxxxxxxxx yes / no
2. I discuss about sexual matters with my father / mother. xxxx yes / no
3. I discuss about sexual matters with my brother / sister. xxxx yes / no
4. I am sure that I will not get AIDS. xxxxxxxxxxxxxxxxxxxxx agree / disagree / don't know
5. Masturbation is harmful to health. xxxxxxxxxxxxxxxxxxxxx agree / disagree / don't know
6. Sex education should be made part of curriculum. xxxxxxxxx agree / disagree / don't know
7. Only abnormal people involve in homosexual activity xxxxxx agree / disagree / don't know
8. One should wait until marriage to have sex. xxxxxxxxxxxxxx agree / disagree / don't know
9. A person can have sex with another if they love each other. agree / disagree / don't know

Section. C

1. Women are more responsible than men for prostitution. xxxx agree / disagree / don't know
2. A man can have premarital sex, but a woman should not. xxx agree / disagree / don't know
3. It is better for men to have sexual experience before marriage. agree / disagree / don't know
4. I don't mind marrying a person who had sex before marriage. agree / disagree / don't know

Any other remark: