AIDS AWARENESS IN PATIENTS ATTENDING THE MEDICAL OUTPATIENT DEPARTMENT OF A PUNE HOSPITAL

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ABSTRACT

A bilingual questionnaire was administered to 400 out-patients to assess their acquired immunodeficiency syndrome (AIDS) awareness. Results were analyzed and three scores, namely educational score (%ES), media score (%MS) and AIDS awareness score (%AAS) were devised to give per cent values to these parameters. Only 49 per cent of the males and 26 per cent of the females had studied beyond Class 10. As many as 103 (25.8%) subjects had never heard of AIDS. The remaining 297 patients knew a fair amount but misconceptions were very common. The %AAS was over 80 per cent in students and in civil servants, around 70 per cent in government servants and business persons and around 60 per cent in house wives. It was higher in those from urban backgrounds and in males. The education and media scores of those ignorant of AIDS were poor compared to those aware of AIDS. Risk factors for ignorance were poor educational levels, low exposure to public media and female gender. A very basic take-off level is therefore required when physicians discuss AIDS related issues with their patients.

MJAFI 1997; 53: 277-281

KEYWORDS: AIDS; HIV; Prevention.

Introduction

The question of patient awareness about human immunodeficiency virus (HIV) infection and the acquired immunodeficiency syndrome (AIDS) concerns physicians in many ways. Not only are physicians seeing increasing number of HIV infected cases, but are also often the first medical contact of such patients. Moreover, in the absence of either a cure for or a vaccine against HIV infection, behaviour modification through health education seems to be the only tangible strategy presently for control of the AIDS pandemic. Information about the knowledge and awareness levels of outpatient department (OPD) patients will enable physicians to interact successfully with them and to play the vital role of health educators in a more fulfilling manner. The present survey was conducted to meet this need.

This survey assumes significance as Ma-

harashtra has a high seroprevalence rate of HIV infection. The year-wise HIV prevalence rate per 1000 in professional and voluntary blood donors in this state has risen from 9.8 and 9.1 respectively in 1992 to 22.2 and 16.4 respectively in 1994. The seroprevalence rates in female sex workers (FSW) of Pune are alarmingly high at approximately 47 per cent. In 1988 the rate was a modest 6 per cent [1]. Low levels of awareness coupled with high seroprevalence rates could make an explosive case load of AIDS and AIDS related illnesses for physicians to treat in this part of India.

Material and Methods

Four hundred consecutive civilian patients over 13 years of age attending the medical OPD of a large hospital in Pune during 1995 were the subjects of this study. All of them were attending the OPD for unrelated medical ailments and none had any HIV-related problem. Each subject was given

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a structured anonymous bilingual questionnaire at the end of the medical consultation by the attending doctor. Each question was explained carefully to the patient in the language he understood. Answers were then recorded. The questionnaire was pre-tested in a pilot survey.

Three different scores were devised to arrive at an arbitrary percentage to determine patients' awareness about particular parameters studied:

1. Per cent AIDS Awareness Score (%AAS):

Calculated by summation of 1 point for every correct response to each of 17 questions regarding AIDS and then converting the score out of a maximum of 17 to a per cent value. This is further elucidated below.

2. Per cent Education Score (%ES): Subjects were scored for their educational status out of a maximum of 12 as follows:

Up to class 8: 3 points

Class 9 to class 10: 6 points

Class 11 to BA or equivalent: 9 points

Above BA or equivalent: 12 points.

The scores were then converted into percentages.

3. Per cent Media Score (%MS): This was based on the frequency of watching TV, listening to the radio, and reading the newspaper by giving 0 points, 2 points or 4 points if the frequency of the particular activity was less than once a month, between once a month to once a week, and more than once a week respectively. The maximum score was 12 for all three activities. The combined total score was then converted to a percentage value.

Data was analyzed using Epi Info Public Domain Epidemiology and Disease Surveillance software (Centre for Disease Control, Atlanta and WHO Global Programme on AIDS).

Results

Demographic data

Two hundred and seven (51.8%) of the 400 patients surveyed were males and 193 (48.2%) were females. The mean age of the subjects was 29.7 ± 8.4 years (range 13 to 65 years).

The educational status of the subjects is shown in Table 1. Fifty per cent of the males had studied beyond Class 10 whereas only 25 per cent of the

females had done so. The overall ES was $52.5 \pm 24.2\%$.

TABLE 1

Educational status and AIDS ignorance levels

Educational level	No ignorant of AIDS		
	Males/total ignorant	Females/total ignorant	Grand-total/ ignorant
≤ class 8	45/20	99/69	144/89
Class 9-10	59/7	43/5	102/12
Class 11-BA	90/2	38/nil	128/2
> BA	13/nil	13/nil	26/nil
Total	207/29	193/74	400/103

The media exposure of the surveyed patients is depicted in Table 2.

TABLE 2

Frequency of exposure to public media

Frequency	Radio No (%)	Television No (%)	Newspaper No (%)
2 week or more	229 (57.2)	308 (77.0)	162 (40.6)
1 week - 1 month	22 (5.6)	17 (4.2)	38 (9.5)
< 1 month	149 (37.2)	75 (18.8)	200 (50.0)
Total	400	400	400

Patients Ignorant of AIDS

Overall 103 (25.8%) of surveyed subjects comprising 29 (14%) males and 74 (33.3%) females were ignorant about AIDS. The educational background and exposure to public media of these patients is given in Table 3. It is seen that these subjects in general and the females in particular had poor educational levels and media exposure.

First source of knowledge

Television was the commonest first source of information about AIDS. As many as 131 patients (44.1%) came to know of the disease through the television. The other sources of information were newspaper (35.0%), radio (12.5%), doctor/health worker (4.7%) and friends (3.7%).

Awareness of AIDS

Beliefs of the subjects regarding AIDS and its transmission are summarized in Table 5. As mentioned earlier, one fourth of the subjects were

TABLE 3
Mean education, media and awareness score by occupation
gender and place of residence

Occupation	Mean % ES	Mean % MS	Mean% AS
Government service	65.8	75.0	71.8
Business	55.8	78.3	68.2
Private service	84.2	80.0	86.5
Farmer	40.0	51.7	48.8
Other	37.5	46.7	33.5
Unemployed	57.5	63.3	61.8
Housewife	45.8	56.9	58.8
Student	64.2	69.2	83.5
Place of residence			
Urban	54.2	64.2	62.4
Rural	42.5	46.7	44.7
Gender			
Male	58.3	69.2	69.4
Female	45.8	53.3	49.4

unaware of AIDS. Almost 35 per cent believed it to be curable. Thirty eight per cent believed that AIDS could spread by kissing and almost 30 per cent believed that it could be spread by touching. Twenty five per cent of the subjects were unaware

that condoms afford protection against transmission of the disease and an almost equal number were unaware of its homosexual route of transmission.

The mean %AAS was 69.4 ± 32.4 for males, 51.2 ± 14.7 for females, and 60.0 ± 38.2 overall. The %MS and %ES scores of those ignorant of AIDS and those aware of it are compared in Table 4.

TABLE 4
Comparison of media (MS) and education (ES) scores in
subjects aware and unaware of AIDS

Mean scores	Aware of AIDS	Unaware of AIDS
% MS	72.5	29.2
% ES	52.5	29.2

A comparative analysis of the %AAS, %ES and %MS of the patients versus their gender, occupation and place of residence is given in Table 3. It is seen that the %AAS was over 80 in students and in civil servants, around 70 in government servants and in business persons, and around 60 in house wives. It was more in those from urban

TABLE 5
Awareness regarding transmission and prevention of AIDS (n=297)

Statement regarding AIDS	Wrong response or "Don't know"		
	Males No (%)	Females No (%)	Total No (%)
Can be spread by sharing toilets/utensils	5 (2.8)	7 (5.9)	12 (4)
Can be spread by mosquitoes/other insects	3 (1.7)	19 (16.0)	22 (7.4)
Can be spread by poor personal hygiene	8 (4.5)	20 (16.8)	28 (9.4)
Can be spread from person to person	5 (2.8)	2 (1.7)	7 (2.2)
Is curable	32 (18.0)	70 (58.8)	102 (34.3)
Is preventable	21 (11.8)	9 (7.6)	30 (10.1)
Is an STD	22 (12.4)	6 (5.0)	28 (9.4)
Can be prevented by having a single uninfected partner	18 (10.1)	14 (11.8)	32 (10.8)
Is preventable by using condoms	35 (19.7)	34 (28.6)	69 (23.2)
Can be spread by kissing	68 (38.2)	45 (37.8)	113 (38.0)
Can be spread by heterosexual intercourse	12 (6.7)	10 (8.5)	22 (7.4)
Can be spread by homosexual intercourse	35 (19.7)	33 (27.7)	68 (22.9)
Can be spread by having sex with female sex workers	17 (9.6)	14 (11.9)	31 (10.4)
Can be spread through infected needles	37 (20.8)	16 (13.4)	53 (17.8)
Can be spread by touching	54 (30.3)	33 (27.7)	87 (29.3)
Can be spread by blood transfusion	25 (14.0)	12 (10.1)	37 (12.5)
Can be spread from mother to child	33 (18.5)	12 (10.1)	45 (15.2)

background and in males. Similar trends were noticeable in education and media scores also.

Discussion

Physicians are increasingly playing the role of health educators during their professional contact with HIV infected persons. It is hoped that such educational sessions and also persuasion may eventually lead to a desirable change in the attitudes and behaviour of patients, thereby reducing further transmission of the disease.

It is worrisome that out of the 400 patients interviewed in the present study as many as 103 (25.8%) were totally unaware of AIDS. This class of respondents in general, and females in particular, had poor educational background as also poor exposure to public media. Even though the majority of the remaining 75 per cent had fairly good idea about the disease, misconceptions were common; particularly about the curability of AIDS, its mode of transmission and its prevention by the use of condoms. A minority even believed that AIDS can be spread by mosquitoes, by sharing toilets, and by poor personal hygiene.

These misconceptions are still common in many parts of the world, particularly in Africa and Asia. For example, almost half the subjects surveyed in Kinshasa [2], Zaire believed in transmission by mosquitoes and in vaccine or cure for AIDS. Though awareness of AIDS was nearly universal in this study, and the vast majority knew the four main modes of transmission, negative attitudes towards condom use were widespread among male respondents and few respondents perceived them to play a central role in combating AIDS.

It appears that television constitutes the best method of conveying information on AIDS [3]. This has been brought out by the present study as well. Notwithstanding the degree of exposure to public media, educational status of the patients was an independent variable which correlated fairly well with their AIDS awareness as seen by %AAS scores of 25 per cent, 71 per cent, 85 per cent and 90 per cent in those who had studied till Class 8, Class 9 to Class 10, Class 11 to BA and beyond BA respectively. Interestingly, over 50 per cent of those aware of AIDS said they knew of it for over 3 years.

The female gender is seen to be an important risk factor for ignorance about AIDS and its spread and prevention. Of the 103 subjects unaware of AIDS, 74 (72%) were females. Even in those aware of the disease, the %AAS of females was 51 whereas that of males was 69. Misconceptions were also commoner among females. These included impressions that AIDS is curable (59% vs 20% in males), that it can be spread by mosquitoes (16% vs 2% in males), that it is not preventable by using condoms (29% vs 20% in males), and that it can spread by poor personal hygiene (17% vs 5% in males). These observations are in general agreement with the poorer scholastic achievements (%ES: 46 vs 58) and media exposure (%MS: 53 vs 69) of females in comparison to males in this study.

However, various studies in women [5], adults of both sexes [6], young people [3], college students of various ethnic groups [7], university students [8] and Indian Naval personnel [9] have shown that the message is slowly but surely getting across and much of the information made available to the public has been absorbed and assimilated.

In addition to other avenues of knowledge, awareness programmes definitely have a positive impact on the knowledge base of individuals. For example, 105 nursing personnel in West Bengal had a significant improvement in percentage scores (from 7.6% pre-training to 51.4% post-training) as a result of training programme in AIDS [9].

However, whether and when this awareness results in desirable behaviour modification is less certain. A recent study [11] to evaluate changes in AIDS related risk behaviour after adolescence in the context of knowledge about prevention of HIV infection did not find any change in risk behaviour. In fact, youth whose risk behaviour increased the most were more likely to know someone who had died of AIDS. Most youth in this study reported that they did not use condoms regularly, disliked them, and had little confidence in their protective ability. Another study from Thailand [5] also concluded that subjects did not apply the knowledge they possessed in personal life circumstances. For example, few of these Thai women

considered themselves to be at risk even though they recognized that their husbands engaged in high risk behaviour like contracting the services of commercial sex workers. Yet another study from England [12] has shown that teenagers may substantially underestimate their personal risk of contracting sexually transmitted diseases even in the face of information about AIDS, disseminated in mass media programmes.

Several conclusions emerge from the present study. Around 25 per cent of our civilian medical OPD attendees were ignorant about AIDS with misconceptions being widespread even in those aware of the disease. Television seems to be the best source of information about AIDS, followed by newspapers/magazines. Presently, doctors and health educators are a poor source of information. Moreover, ignorance and misconceptions were commoner in those with less educational achievement and in those who were under exposed to public media. Lastly, females as a whole were generally less knowledgeable about AIDS because they were less educated and had less access to public media as compared to males.

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