KNOWLEDGE OF UNIVERSITY TEACHERS ABOUT HIV/AIDS AND MICROBIOCIDES IN KARACHI PAKISTAN

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ABSTRACT

Prevalence of AIDS and HIV infection is currently low in Pakistan but is at risk of sharp increase. The future risk of HIV epidemic would be associated with knowledge attitude and practices of general public. Monitoring of level of awareness is essential in order to safeguard against outbreak of HIV/AIDS epidemic. This study assessed the level of awareness of nearly 188 university teachers (112 male & 76 female) with the help of a self administered questionnaire that had 30 items to be marked True or False.

All the participants had a postgraduate degree in science subjects and included 14 having Ph.D. degrees. Mean number of correct answers was 14.5 (48.5%). Proportion of correct answers was relatively higher for questions pertaining to definition (63%) as compared to those related to transmission (49%), prevention (47%), testing (45%) or rapid testing (45%). The two questions most frequently answered wrong were that subjects mentioned it false that "HIV is destroyed by bleach" (90%); and considered it true that, "If someone gets HIV through needle sharing, that person can only spread HIV by sharing needles with other people" (74%). The level of awareness of highly educated professionals was not satisfactory and indicates need for increasing measures to educate the public about HIV and AIDS.

Kewords: AIDS, HIV, Pakistan, microbicides

INTRODUCTION

Spread of HIV and AIDS result in macro and micro level disruption to societies, families, economies and health care systems. The UNAIDS and the WHO estimate that AIDS has killed more than 25 million people since it was first recognized in 1981,. Despite recent, improved access to antiretroviral treatment and care in many regions of the world, the AIDS epidemic claimed an estimated 2.8 million lives in 2005 of which more than half a million were children (UNAIDS 2006).

According to a global report on HIV, in Pakistan, approximately 85 000 [46 000–210 000] adults and children were living with HIV in 2005. The country will need to improve its prevention efforts if it is to avoid more serious HIV outbreaks(UNAIDS 2006). Almost one in four injecting drug users tested in Karachi was HIV positive in 2004 (Altaf et al. 2007); less than a year earlier the same community yielded only one HIV-positive case. Many of these injecting drug users move from city to city, and large proportions of them share injecting equipment (48% in Karachi and 82% in Lahore had shared in the previous week). There is significant overlap between injecting drug use and sex work—against a backdrop of dismal AIDS knowledge among persons at high risk of infection. In Karachi, one in four injecting drug users had never heard of AIDS, while one in five sex workers could not recognize a condom, and one in three had never heard of AIDS. A mere 2% of female sex workers said they had used condoms with all their clients in the previous week. It has been mentioned by the report that there are signs of HIV outbreaks in Bangladesh and Pakistan(Ministry of Health Pakistan 2005;Monitoring the AIDS Pandemic Network (MAP) 2005) .

Proliferation of media and technological advancements are having marked impact on people's values and behavior. Such socio-cultural, forces have been noted as the underlying forces for the epidemic of HIV and other STIs in other countries (Bloom 2007;Jodati 2007;Mukherjee 2005). Pakistan though currently not among the countries having high rates of HIV/AIDS is at high risk f the development of an epidemic (Bokhari 2007;Kayani 1994;Vermund 2006). It has been observed that educated people change risky behavior much easily than the less educated people (Ntozi 1997) . Thus they can serve as community leaders for programs aiming at increasing awareness. Assessment of knowledge of highly educated people could help in designing programs for training the trainers.

The purpose of the study was to assess level of awareness of that section of local population who is likely to have the most knowledge about HIV and microbicdes.

METHODS

This study assessed the level of awareness of nearly 188 university teachers (112 male & 76 female) with the help of a self administered questionnaire that had 30 items (Table 2) to be marked True or False. The questionnaire was designed on the basis of questions that have been used by other researchers in similar studies (Merchant et al. 2007). Anonymity of subjects and institutions was assured and written consent for participation in study was taken.

Data was collected from teachers of a large local University. Only teachers of science subjects were included in the study. Data was collected in a single day during a span of two hours by four data collectors. On average filling in the questionnaire took two to three minutes.

Only the teachers who were available on the day of data collection and could fill the questionnaire on the spot were given questionnaires. In order to minimize contamination of answers and bias because of discussions with the data collector or other persons, the questionnaire was to be answered without making any comments or discussions.

RESULTS

All the participants had a postgraduate degree in science subjects and included 14 having Ph.D. degrees. Details of the participants are given in Table 1.

Table 1: Characteristics of the Respondents

Characteristic	Statistic		
	Male	Female	Total
Age [Mean (SD)]	45 (13)	37 (10)	42 (13)
Education:			
M.Phil. [no (%)]	8 (7.1%)	12(15.8%)	20(10.6%)
MSC [no (%)]	80 (71.4%)	60(78.9%)	140(74.5%)
PHD [no (%)]	24 (21.4%)	4(5.3%)	28 (14.9%)
Department			
Biol. Sci. (n,%)	72 (64.3%)	64(84.2%)	136(72.3%)
Other Sci. [no(%)]	40 (35.7%)	12(15.8%)	52 (27.7%)

Mean number of correct answers was 14.5 (48.5%). Percentages of correct answers for each question are given in Table 2. The two questions most frequently answered wrong were that subjects mentioned it false that "HIV is destroyed by bleach" (90%); and considered it true that, "If someone gets HIV through needle sharing, that person can only spread HIV by sharing needles with other people" (74%).

Responses were also assessed in relation to subtopics (Table 3). Mean percentage of correct answers was relatively higher for questions pertaining to definition (63%) as compared to those related to transmission (49%), prevention (47%), testing (45%) or rapid testing (45%).

Though the sample size was small and the results are expected to be indicative of only a particular section of the population, differences were explored in level of knowledge according to age and level of education and area of study (department) of respondents. On average, mean percentage of correct answers was higher for females as compared to males (P=0.039) (fig 1). Those who had degrees of M.Phil. or Ph.D. had significantly (P=0.013) higher mean percentage of correct answers than those who had only Masters degree (fig 2). Those who were aged 38 to 52 had significantly (P=0.02) higher mean percentage of correct answers than those who were younger or older (fig 3). Respondents belonging to biological sciences had significantly (P=0.001) higher mean percentage of correct answers than those belonging to other sciences (fig.4). On average, females answered more questions (15.6) correctly than men (13.8) (P<0.05).

DISCUSSION

The level of awareness of highly educated professionals was not satisfactory in all areas and indicates need for increasing measures to educate the public about HIV and AIDS.

Though educational level is associated with better knowledge (Mukherjee 2005;Ntozi 1997) about ADIS/HIV It has been observed in several other studies that level of awareness of even educated people in Pakistan is not very high and studies done among medical students and physician also indicate need for improvements (Anjum et al. 2005;Khandwalla et al. 2000;Shaikh et al. 2007).

Even short courses are found to have marked effect on knowledge and attitudes (Mukherjee

2005) and such courses could be arranged for professionals and public.

It has been shown that autonomy has positive influence on women level of awareness of AIDS (Bloom 2007), however the observation that women had better knowledge than men is a new observation. It needs to be rechecked in larger studies. Lower level of knowledge of relatively younger adults could also be a cause of concern. Confirmation of these trends is needed and if they exist in general their reasons should be explore.

Table 2: Percentage of Subjects who gave correct answers

Questions	% of correct answer		
	Gender		Total
	F	M	n=188
	n=76	n=112	
	%	%	%
Q1. If you were HIV infected, current drug treatments would let you live longer.	63	46	53
Q2. People can get AIDS without getting HIV.	79	50	62
Q3. Being infected with HIV does not mean you have AIDS.	95	54	70
Q4. A person can be infected with HIV for 5 years or more without getting AIDS.	79	61	68
Q5. A person cannot get HIV by donating blood.	58	50	53
Q6. A woman with HIV can give HIV to her baby during breastfeeding.	53	57	55
Q7. If someone gets HIV through needle sharing, that person can only spread HIV by sharing needles with other people.	21	29	26
Q8. Coins, such as quarters or nickels, can carry HIV.	84	79	81
Q9. HIV is not transmitted by putting tongue in the mouth of someone who has HIV.	56	18	33
Q10. HIV is destroyed by bleach.	5	7	6
Q11. If you use injection drugs, the only way to prevent getting HIV is to quit using them.	68	46	55
Q12. Wearing insect repellant to keep away mosquitoes prevent from getting HIV.	68	61	64
Q13. Not having sex is the only way to reduce your risk of getting HIV.	53	61	57
Q14. You can prevent getting HIV after sex by washing your genitals or private parts.	74	86	81
Q15. Microbicides are drugs available inform of syrups and capsules	37	25	30
Q16. Use of Microbicides prevents transmission of HIV and AIDS	37	39	38
Q17. All Microbicides have spermicidal activity	58	43	49
Q18. Microbicides are formulated as gels, creams, films, or suppositories that can be applied inside the vagina or rectum.	42	46	45
Q19. HIV makes antibodies which harm a person's body.	58	32	43
Q20. Having blood drawn for an HIV test will make you anemic.	63	61	62
Q21. The HIV antibody test help strengthen antibodies to prevent infected with HIV.	26	39	34
Q22. If you were infected with HIV one week ago, your HIV test will be negative.	68	50	57
Q23. The HIV antibody test will not tell you if you have AIDS.	47	46	47
Q24. If HIV test is negative, it must be repeated within a week to confirm the results.	21	36	30
Q25. It takes one to two days to perform a rapid HIV test.	37	32	34
Q26. An invalid rapid HIV test result means you've been infected with HIV for < 3 months.	16	43	32
Q27. If your rapid HIV test is positive, then you will need a test to confirm this.	68	68	68
Q28. The rapid HIV test uses a sample of your urine.	37	50	45
Q29. A needle can be used to take blood from your arm for the rapid HIV test.	47	50	49
Q30. Even if your rapid HIV test is positive, you may not have HIV.	42	21	30

Table 3: Mean percentage of correct answers from various subtopics

Subject area of Questions	Gender				Total	
	F		M			
	Mean	SD	Mean	SD	Mean	SD
Definitions	78.9	18.8	52.6	20.6	63.3	23.6
Transmission	53.6	23.7	46.4	21.6	49.3	22.6
Prevention	49.1	21.0	46.0	13.9	47.2	17.1
Testing	47.3	28.0	44.0	23.4	45.3	25.3
Rapid Testing	41.2	22.1	44.0	20.2	42.9	20.9

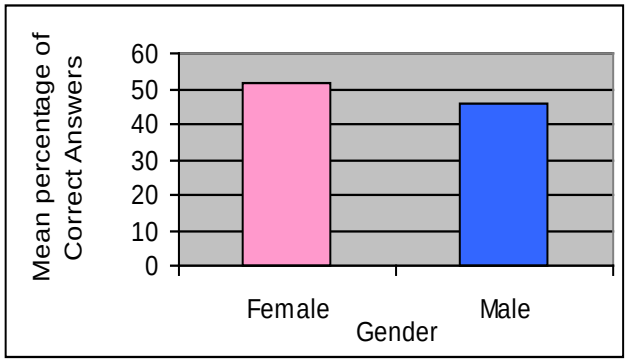

Figure 1: Correct answers according to Gender

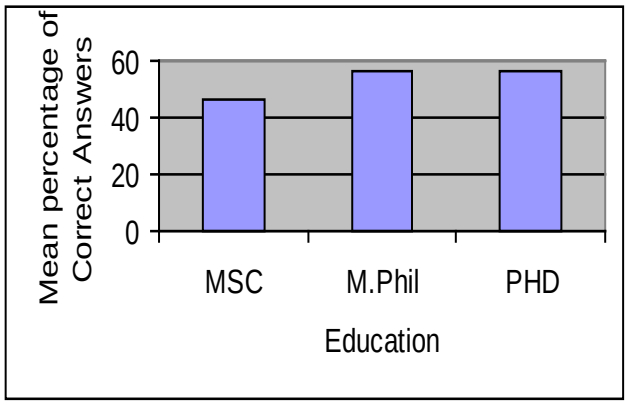

Figure 2: Correct answers according to education

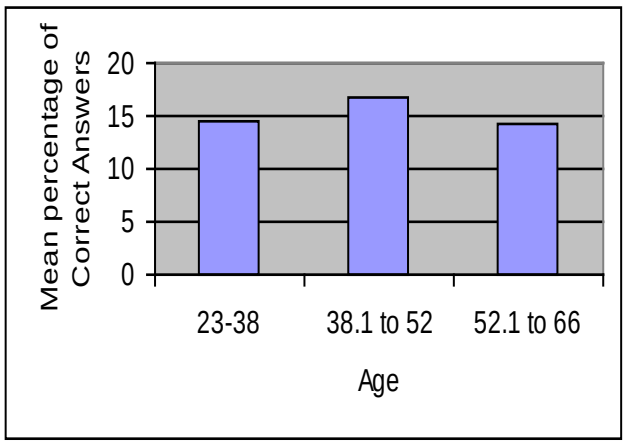

Figure 3: Ratio of correct answers according age

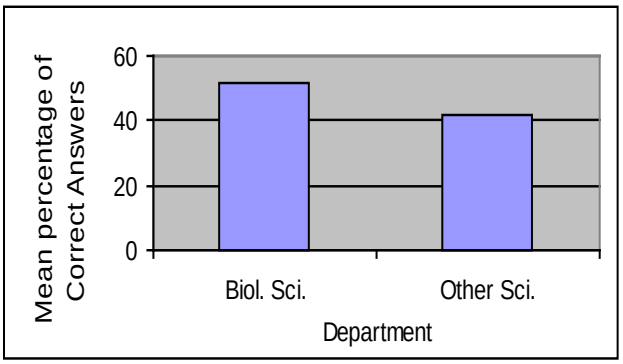

Figure 4: Correct answers according to department.

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