



Awareness of Hiv/Aids Among First Year Medical Undergraduates:- A Pilot Study

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ABSTRACT

Background:- Adult HIV prevalence is in declining trend in our country since 2000. The total number of people with HIV (Human Immunodeficiency Virus) infection in India is estimated to be 10% of all global cases. HIV/AIDS are a major concern of health care professionals all over the world. People living with HIV in India often experience discrimination while receiving health care due to inadequate knowledge and fear among health care professionals. Health education about HIV/AIDS has important role in the proper care of the people living with HIV/AIDS. Methods:- The present cross sectional study was conducted on 200 newly admitted medical undergraduates in three consecutive years. The information concerning basic knowledge of HIV infection, its mode of transmission and methods of prevention were gathered in pre-designed, structured and self-administered questionnaire. Result:- The results of our study informed that almost all the medical undergraduates (100%) students heard about the infection. Although, all of them had correct knowledge about the causative agents, but only 43% had knowledge about availability of drugs to halt the progression of infection in the body. They had good knowledge about availability of diagnostic tests. Majority of them (87-98%) were well informed about the various modes of transmission. Misconceptions about transmission were also prevailing in the students. Majority of them (83-100%) had encouraging knowledge about the preventive approaches. Conclusion:- The study recommended the need for development and organization of HIV/AIDS training sessions at regular intervals from high school level to inception of medical curriculum.

KEYWORDS : Knowledge, Medical undergraduates, HIV/AIDS.

INTRODUCTION

Within about two decades of the pandemic of HIV/AIDS has emerged as one of the most important and serious health problem. HIV/AIDS has reached the pinnacle of the global health agenda. According to UNAIDS, an estimated 33.2 million people worldwide were living with HIV infection or disease by the end of 2007. HIV/AIDS is a life threatening disease. The majority of new infections occur in young adults. It is estimated that more than 40 million people between the ages of 15- 24 will have contracted HIV by 2020[1] . It affects all body systems as well as the mental health and social relationship of carriers and asymptomatic patients. WHO reports also that more than 45% of all new infections occur in people aged 15-24 years. Human Immunodeficiency Virus / Acquired Immunodeficiency Syndrome (HIV/AIDS) is seen as one of the most devastating infection/disease known to have attacked the human population; reported to often affects the economically productive young adults. Developmental characteristics of young populations include a tendency toward risk-taking behavior and indifference to the importance of preventative measures. According to National AIDS Control Organization (NACO), the total number of people living with HIV/AIDS (PLHA) in India is estimated at 24 lakh (19.3 – 30.4) in 2009. Children (<15yrs) account for 3.5% of all infections, while 83% are in the age group 15-49 years. Of all HIV infections, 39% (9.3 lakh) are among women. However, the adult HIV prevalence at national level has continued its steady decline from estimated level of 0.41% in 2000 through 0.36% in 2006 to 0.31% in 2009. All the high prevalence states show a clear declining trend in adult HIV prevalence [2]. The doctors would have to play a key role in providing care to HIV positive /AIDS patients. The medical students are the future doctors. Their possible indifferent attitudes, which largely stemmed from adequate knowledge, may in turn educate and provide useful information to all other different kinds of health personnel in their surroundings to provide care to AIDS/HIV positive patients. Therefore, the comprehensive knowledge of

the first year students who directly come from the common population is important to decrease fear and increase empathy in the community. Several studies have been conducted in our country and others regarding awareness and practices of various groups including various types of health personnel. The World Health Organization's report on the role of HIV-related medical education in the South Asia region has also underscored the importance of including training in sensitivity, communication skills, and the development of compassionate attitudes toward HIV infected patients in the medical curricula [3]. Studies in India concerning HIV-related knowledge and attitudes amongst both health professionals and medical students suggest that early educational intervention has the potential to address the gaps both in knowledge and the negative attitudes directed towards those with HIV infection [4-6] . But, only few studies are available with respect to medical undergraduates in our countries. With the above view, the present study was conducted with the objective to assess newly admitted medical undergraduates for their knowledge and need of educating them to remove apprehension build up confidence so as to enhance their ability to provide care to patients with the disease which is highly stigmatized in our human population.

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MATERIAL AND METHODS

In this present cross-sectional study, the newly admitted students of the Medical College were enrolled as study subjects. The students were of first semester of three consecutive year's i.e., of year 2011, 2012 and 2013. In every year 100 students were admitted in the first year. The students not present on the day of data

collection were excluded from the study. Therefore, the total numbers of students enrolled in the study were 250. Data collection was done on a fix day in the first week of the first semester of each year. The questionnaire with different statements concerning basic knowledge of HIV infection, its mode of transmission and methods of prevention was distributed to all the enrolled students. A pre-designed, structured and self-administered questionnaire was used for the data collection. Questions were close ended with multiple answer type. Every questions had a response as 'do not know' also. The responses were noted and analyzed as correct response only. The response marks as 'do not know' were record as incorrect. The overall response rate were computed for each response and presented in percentage form.

RESULTS

All the students who were present on the day of data collection were included in our study and have completed the questionnaire. The mean age of the study population was 19.5 (range 17 – 22 years). In our study, it was observed that all the students have heard the name of HIV/AIDS and they have correct knowledge of the causative agent i.e.; disease is caused by a virus name Human Immunodeficiency Virus.

However, about three-four of them have correct knowledge about the availability of test to detect the infection among human beings. Majority of the students (97.5%) correctly answered that the infection is incurable. Few students (55%) have knowledge about anti-retroviral drugs which are effectively used against progression of infection inside the body and about 73% of them have correct knowledge about unavailability vaccines to prevent or cure the infection (Table-1). As regarding awareness about established routes of transmission, majority of students (87-98%) have correct information about different modes of transmissions viz. sexual route (unsafe sexual practices – 98.5%), transmission through infected blood or its products (92.5%), mother to child transmission (87%), and sharing of needle/syringes (94%) (Table-2). Misconceptions related to the transmission of infection were also prevailing among these students. Majority of them were incorrectly answered that the infection was transmitted by sharing of cloths (88%) and food or utensils (94.5%). Similarly, they were also agreed that kissing and shaking hands (95.5%) was among the various routes of transmission. About one-third of the students (51.5%) were also answered that infection can be transmitted by insect bites (Table -3). In our study, it was found that the majority of these newly admitted medical undergraduates had correct knowledge about the methods of prevention (Table - 4).

DISCUSSION

People living with HIV in India often experience discrimination while receiving health care. Inadequate knowledge and fear of HIV infected people have been identified as a serious problem among health care professionals considering themselves to be at risk of contracting the infection in India. These feelings of anxiety and fear concerning HIV infected people among Indian health care professional's results in their meting out derogatory behavior towards their HIV infected patients. Research in other countries has indicated the central role of medical education in improving knowledge of HIV risk and transmission and changing the attitudes of medical students as it is related to care of HIV-infected people[7-8]. The only way to combat a disease that has no effective treatment is by prevention. The best single way to prevent this disease is through education. Prevention of HIV/AIDS infection through continuing education is a key strategy for the control of the HIV/AIDS epidemic at least until vaccines and drugs are available, accessible, and affordable to all the infected persons. The results of our study focused on the critical knowledge regarding the spread and risk of transmission among the newly admitted medical undergraduates. Though the all students in our study heard about the HIV/AIDS and its causative agent, still their knowledge about availability of drugs and vaccines were satisfactory. Results of our study regarding to the knowledge of the students (96%) about incurability was in conformity with the observations made by Samant and Mankeshwar[9] which is better than the knowledge among the first year nursing students (68%)[10]. However, the knowledge about availability of diagnostic methods in our study was poor than the medical students the other coun-

tries, but better than the nursing students in our countries[10-11]. Lack of knowledge regarding the HIV infection among the students in this study is also suggested by our data pertaining to vaccine and drug availability for HIV prevention. Twelve percent (55%) and 73% of the students reported availability of a vaccine to prevent HIV and drug for halting the progression of infection in the body. The similar results were also observed in the study conducted by Samant and Mankeshwar. In a study conducted by Brij Mohan & Vashist among nursing students in India, they found that 10% of nursing students reported vaccine availability to prevent HIV [12]. It is encouraging to note that the knowledge about transmission of infection through the indiscriminant heterosexual behavior, by blood or its product and by use of contaminated needle/syringes were fairly high (87-98%) in our study subjects. However, only 87% of them had knowledge about vertical route of transmission. Similar high figures of knowledge about the transmission were reported from studies conducted on various populations in our country and abroad6, [9-15]. Similar other studies certain misconceptions about transmission of HIV/AIDS were also prevalent in our study. Commonest misconceptions prevailed among them were transmission through casual contacts like sitting together or sharing clothes, utensils/foods and shaking hands and kissing. In our study, there was an important misconception about transmission of infection by insect bite which was shown in other studies[9, 11-17]. These misconceptions may reduce their efficiencies in providing care to affected groups in the community. These misconceptions need to be allayed during their medical teaching and trainings. Similar to the other studies[10-11], most of the students in our study had awareness related to the different preventive approaches.

CONCLUSION

This study is pertinent in the group of respondents, medical undergraduates in the basic medical sciences, who have little or no contact with patients yet, to view their knowledge towards the global fight against the spread of HIV. Findings of this study suggest that the students had satisfactory levels of knowledge on transmission and prevention of HIV/AIDS. It recommended from these data that the need for development and organization of HIV/AIDS training sessions at regular intervals from high school level to inception of medical curriculum. This will promote a good delivery of accurate information on HIV/AIDS to the public and health care personnel to provide proper patient care.

Table – 1: Awareness among first year medical students

Awareness of student	no.	%
Heard about HIV/AIDS	200	100
Causative Agents	200	100
Availability of Tests to detect	191	95.5
Incurable Disease	195	97.5
Availability of Medicines	110	55
Availability of Vaccines	146	73

Table – 2: - Awareness among first year medical students regarding modes of transmission

Awareness of student	No.	%
Heterosexual Route (Multiple Sex Partners)	197	98.5
Transfusion of Blood/ its products	185	92.5
Mother to Child Transmission	174	87
Sharing of Needles (Intravenous drug uses)	188	94

Table – 3: Misconceptions among first year medical students regarding modes of Transmission

Awareness of student	No.	%
Sharing of Clothing	176	88
Sharing of Common utensils/Food	189	94.5
Kissing/Shaking Hands	191	95.5
Insect Bites	103	51.5

Table – 4: Awareness among first year medical students regarding Preventive Approaches

Awareness of student	No.	%
Avoid Multiple Sex Partners	200	100
Use Condoms	197	98.5
Use Screened Blood and its product	191	95.5
Use of Disposable Needle/Syringes	182	91

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