

Attitude of population towards mandatory testing as a preventive measure to control HIV/AIDS: pilot study

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The objective of questionnaire based survey was to assess the current level of knowledge and awareness regarding HIV/AIDS and the willingness for mandatory testing among population between younger age groups. A 17- item questionnaire form was developed and validated by institutional research committee. Data were collected from total 771 volunteers, of different gender, age groups, educational levels and marital status and analyzed statistically. 20-30 year age groups have more percentage of knowledge about transmission of AIDS through various modes as compared to 31-45 year age group. 85.3% female were aware about transmission through an infected mother to fetus as compared to 2.3% male. More than 98% of medical and paramedical students and 75% overall population knew about high risk areas like prostitutes, more than one infected partner and unsafe sexual contact. 99% awareness related to self-protection by use of condoms, being faithful to partner and do not visit prostitute were found in overall population. Higher percentage of awareness and knowledge were found about modes of transmission, high risk factors, self protection and diagnostic test in paramedical and medical students. Despite of not knowing the HIV status, 85-88% population willingly agreed to undergo test in future. 54% male and 59% of female were willing to make the test mandatory. This finding definitely seems that education is the only sole criteria to fight this pandemic and despite education, thinking towards some legal intervention definitely will work.

Keywords: AIDS, Knowledge, Awareness, Transmission, Mandatory testing.

INTRODUCTION

Till date, it's a big question mark about number of people living with HIV infection in India. According to NACO, AIDS is affecting mainly young people in the sexually active age group. Majority of the infected patients (87.7%) were in the younger age group (15-44 years). As per report of CIA's, by 2010, India will toper with 20 to 25 million AIDS cases^[1-7]. AIDS is the final and fatal stage of the HIV infection. Day by day, high sensex of spreading of this dreaded pandemic may be due to sharing needles/ syringes with an infected person, through blood transfusions and unprotected sexual contacts and from infected mother to fetus. Even today the majority of reported cases are found among homosexuals and prostitutes^[8-9]. Generally, information on preventive controls highlighted routinely by government agencies and voluntary organization in media and dailies about the use of condoms-disposable syringe, do not use paid blood donor and faithful to the partner. Prevention by effective vaccination is still remains a dream. Prediction of increasing no.

of HIV cases may due to illiteracy, improper knowledge and awareness about AIDS. To curb this, coordinated efforts from all disciplines of the health care system and some amount of legislative interference is needed against the disease^[10-16]. The rational behind this study was (i) To assess the current level of knowledge and awareness regarding HIV/AIDS (ii) To assess the willingness for mandatory testing among population about risk of own life and control further spread of infection between younger age groups.

METHODS

A 17- item questionnaire form was developed in an international and vernacular language. The form was validated by institutional research committee. Volunteers of different gender, age groups, educational levels and marital status were randomly selected from local community of Anand district of Gujarat state. Data were gathered from 771 participants by personnel meeting at various places like

colleges, hospitals and hostels as well as home visits (deliberately selecting laws students). The questionnaire was comprised of three sections: (i) demographic (ii) knowledge and awareness (iii) opinion and willingness for mandatory testing. The first section was comprised of gender, age, marital status and academic background. The second section was comprised of modes of transmission, high risk areas and protection. The third section was comprised of opinion and willingness for mandatory testing. The data were analyzed statistically using excel spreadsheet.

RESULTS

Demographic details of the survey population were depicted in Table 1.

Table 1. Demographics characteristics of survey population

Demographic variable	N=771	Percentage
Gender		
Male	479	62.13
Female	292	37.87
Age in years		
20-25	669	86.77
26-30	61	7.91
31-35	22	2.85
36-40	13	1.69
41-45	6	0.78
Marital status		
Married - Male	77	9.99
Married - Female	31	4.02
Unmarried-male	402	52.14
Unmarried-Female	261	33.85
Academic background		
Undergraduate	501	64.98
Double graduate (UG + LLB)	149	19.32
Postgraduate	121	15.69

97.91% of male and 96.38% female from overall population had heard about AIDS. Table 2 depicted percentage of knowledge and awareness about modes of transmission (MT₁-MT₆) of AIDS among various age groups. 20-30 year age groups had more knowledge about various modes of transmission as compared to 31-45 year age group. This fact was also supported by analysis of variance at significant difference (P<0.05) between various age groups. Figure 1 depicted knowledge and awareness about transmission through a sexual route, sharing needles containing infected blood, transfusion of infected blood, transmission through an infected mother to fetus among overall male and female population. Graphical representation clearly suggested that

85.3% female were aware about transmission through an infected mother to fetus as compared to 2.3% male. At educational levels, data of Figure 2 represented that population of double graduate had comparatively lesser knowledge and awareness of HIV/AIDS as compared to undergraduate and postgraduate population. Data analysis predicted that improper knowledge about “AIDS is not transmitted by body fluids, mosquito bite and from infected mother to child” was found at all level of age group, gender and education. Figure 3 depicted about the % of knowledge and awareness regarding high risk areas of AIDS among overall population

Table 2. Percentage of knowledge and awareness regarding modes of transmission at different age groups

Age (yrs)	MT ₁	MT ₂	MT ₃	MT ₄	MT ₅	MT ₆
20-25	82.03	67.25	69.67	25.89	74.68	53.25
26-30	73.38	73.33	57.67	25.75	74.24	45.44
31-35	97.14	56.19	48.33	34.09	89.54	51.43
36-40	100	38.33	38.33	50	68.33	50
41-45	40	18.33	25	13.33	23.33	28.33

Where, MT₁: Spread by unprotected penetrative sexual contact, MT₂: Transfusion of infected blood and organ transplants, MT₃: Transmitted from an infected mother to her child, MT₄: Not spread by various body fluids, MT₅: Not spread by casual contact such as shaking hands, touching to an infected person, MT₆: Not spread by mosquito bite or other insect bite

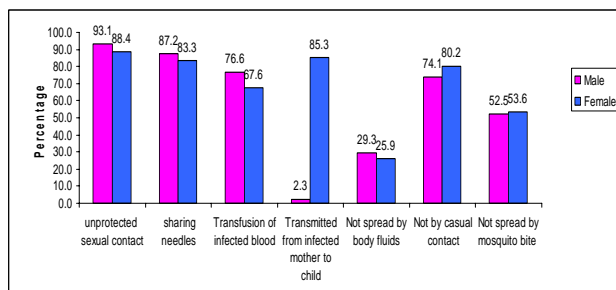


Figure 1. Knowledge and awareness about modes of transmission in overall male and female

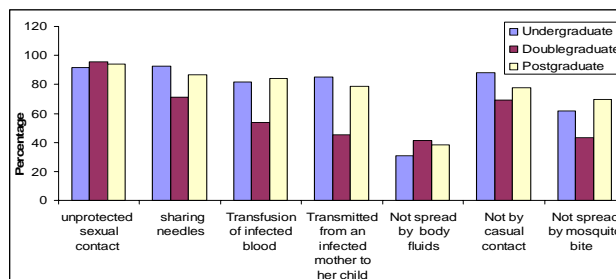


Figure 2. Knowledge and awareness about modes of transmission at different education levels

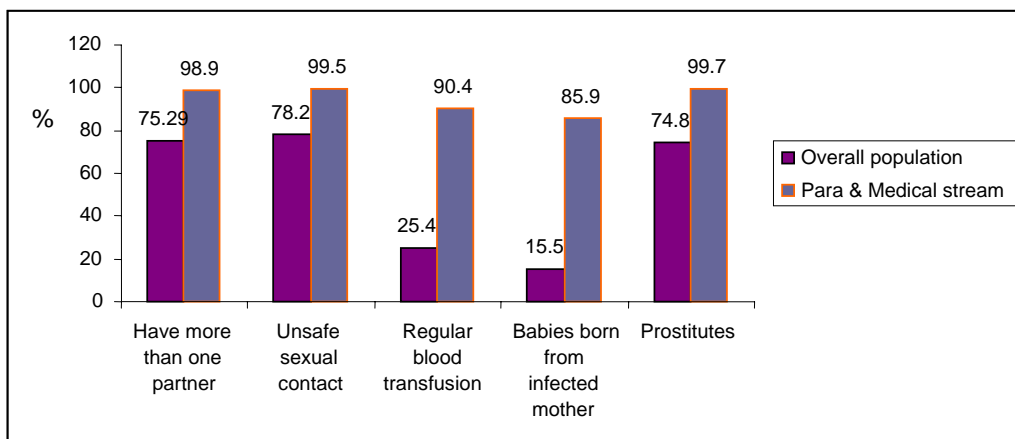


Figure 3. Knowledge and awareness about high risk groups

compared with paramedical-medical students. Majority of population knew about persons who have more than one partner especially sexually infected partner, prostitutes and unsafe sexual contacts are the high risk for HIV infection as compared to risk to the babies born from infected mothers and person who receive regular blood transfusion.

Figure 4 represented awareness about self-protection from infection. Graphical analysis showed that majority of population aware about use of condoms, being faithful to partner and never visit prostitutes. In addition to this, greater degree of knowledge related to use of disposable syringe or needles and do not use a paid blood donor were also found in paramedical-medical students. The knowledge about testing of HIV/AIDS was found higher in students of paramedical-medical stream as compared to other stream of education. M.D., M.B.B.S., M. Pharm and Physiotherapy 100%, B. Pharm 98.18%, B.H.M.S. 89.23%, M.S.W. 92.85%, B.E. 88.33% and M.Sc. 66.66% students knew about ELISA and WESTERN BLOT test as compared to other educational streams like M.E.B., M.C.A., M.B.A., B.Sc., B.COM., B.A., L.L.B., B.A.. 95% population expect from society about positive thinking, wide spread of education, awareness programmes, establishment of more number of testing centers, counseling to enhance moral support of AIDS patient and help to curb the disease.

Overall population believed that testing of HIV should be a part of routine test 58%, only after transfusion of blood 25%, before/after surgery 17% and should be avoided due to embarrassment in

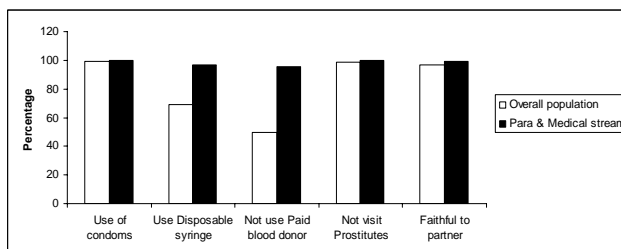


Figure 4. Awareness about self protection to HIV/AIDS

family 10%. 50% married male and 38.7% married female knew their HIV status because they found it necessary while remaining population not undergoing the testing because of assumption that they were not at a risk. Despite of these, 85-88% of remaining population was willing to undergo the test in future. As per opinion of 92% overall population, testing should be mandatory rather than matching horoscope and caste at the marriage stage. Figure 5 and 6 showed opinion of male and female population and population at different education level about making the test mandatory. 54% male and 59% of female were willing to make the test mandatory. 7% people were not agreed because of fear of fake certificate while 10% people had given emphasis on morality of the person. Same scenario was also found at different education level.

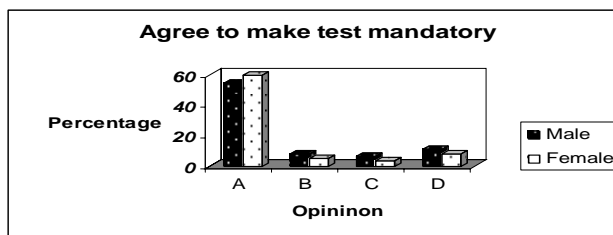


Figure 5. Opinion to make test mandatory in overall population

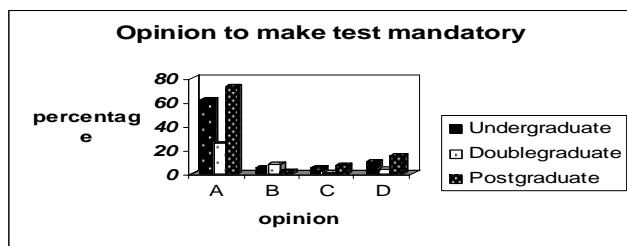


Figure 6. Opinion to make test mandatory at different education (A) agree to make test mandatory (B) not agree to make test mandatory (C) not agree to make due to fear of fake certificate (D) give emphasis on morality

DISCUSSION

In the present study, surprisingly it was observed that more people had heard about AIDS than HIV. As the level of education increased, degree of knowledge and awareness about transmission modes, high risk factors, self-protection and diagnostic testing were also increased. The major key findings of this study were: (i) Younger age groups had more knowledge about modes of transmission of AIDS. (ii) Despite of knowledge about transmission through a sexual route and sharing needles containing infected blood, less awareness was found among overall population related to transmission through transfusion of infected blood and through an infected mother to her fetus. (iii) Interesting and valuable findings that females were more aware about transmission through an infected mother to her fetus as compared to male. (iv) Majority of population knew sexually infected partner, prostitutes and unsafe sexual contacts were the high risk for HIV infection. (v) Majority of population aware about use of condoms, being faithful to partner and never visit prostitutes. (vi) Among paramedical-medical population, significant awareness reflect for (a) people who receive regular blood transfusion in disease like hemophilia and thalassemia and use of paid blood donor were at high risk; (b) ELISA and WESTERN BLOT testing of AIDS; (c) use of disposable syringe or needles; (d) not transmitted by body fluids, mosquito bite and from infected mother to child. (vii) Overall population believed that HIV test must be a part of routine test (just like malarial test), despite knowing the HIV status or not, majority willing to undergo HIV test in future. (viii) Majority of law students denied making the test mandatory. Just only half of the population voted in

favor of mandate. This finding definitely seems that education is the only sole criteria to fight this pandemic and despite education, thinking towards some legal intervention definitely will work. This will be the moral responsibility of all Health professionals and Health-policy makers to increase the level of knowledge and awareness about HIV/AIDS among overall population.

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