

**Original article**

## **Awareness among voluntary blood donors about transmission and prevention of HIV/AIDS**

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**Abstract:**

**Introduction:** There is a study decline in the incidence of the HIV infection. To sustain this decline public awareness of modes of transmission of HIV and potential preventive measures are important. The social stigma associated with HIV, offsets the progress in management of these individuals. This study was designed to know the awareness about transmission, prevention and social stigma associated with HIV infection among voluntary blood donors.

**Methods:** This was a cross sectional study, involving the voluntary blood donors. The consenting voluntary blood donors filled a pre-set questionnaire based on WHO Behavioural Surveillance Surveys.

**Observation and results:** A total of 117 voluntary blood donors consented and participated in the study. Less than 20% of the participants had misconceptions regarding the mode of transmission of infection, irrespective gender, education and marital status. Approximately 80% of the participants were willing to share a meal with HIV infected individual or buy food from their shop or continue their schooling. Only 13% of the participants were aware of the availability of the confidential testing facilities for HIV infection.

**Conclusion:** The knowledge about HIV infection and attitude towards the infected individuals is better than in the earlier studies. The study also notes the lack of awareness among public about the voluntary counselling and testing facilities for HIV.

**Keywords:** HIV awareness, HIV prevention, blood donors

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**Introduction:**

HIV/AIDS pandemic is showing a slowly declining trend in India following targeted interventions, condom promotion, information, education and communication. There are an estimated 20.9 lakh people living with HIV/AIDS in India as per 2011 estimates. The current national prevalence of HIV is estimated at 0.35% and the Karnataka state prevalence at 0.53%.<sup>1</sup>

Awareness about the modes of transmission and preventive measures are important in sustaining the decline in transmission in HIV.<sup>2</sup> Lack of knowledge about the HIV/AIDS leads to increased

high risk behaviours, and increase in transmission of HIV. Effective knowledge dissemination can be done either through the use of mass communications or targeted intervention.

We propose to study the awareness among the blood donors about the transmission and prevention of HIV/AIDS.

**Aims and objectives:**

- The study will be conducted to study awareness of transmission and prevention of HIV/AIDS among voluntary blood donors

- To know the existing stigma among blood donors, about HIV/AIDS
- To understand the relationship between the awareness and gender, education, and marital status

#### **Materials and methods:**

This was a cross sectional study conducted among voluntary donors at blood bank, MIMS, Mandya. The data was collected among eligible participants using the pre-set questionnaire. The questionnaire was designed on the basis of WHO guidelines on Behavioural Surveillance Surveys. The questionnaire included questions to assess the awareness of modes of transmission, prevention of transmission and stigma associated with HIV/AIDS.

The data collected was converted to a master chart. The data was compared using ChiSquare test and Fisher's exact test between the groups. A P value less than 0.05 was considered significant.

#### **Observation and results:**

The study was conducted over a period one month among the voluntary blood donors at MIMS, Mandya. A total of 117 individuals participated in the study. The questionnaire was completed by the participants or were administered by the investigator. Of the 117 participants 11 were female and 106 were male. Of the 117 participants 5 were illiterate, 11 with higher primary school, 20 had high school education, 56 with pre-university course, 23 had completed graduation and 2 had completed post-graduation. The blood donors were aged between 18 and 49 years with average age of 28.8 years. 109 participants were Hindu and 8 belonged to Muslim community.

The following are the results of the study

- All of the participants had heard of the HIV/AIDS.
- 12% of the participants (14 of 117) didn't know if consistent use of condoms could

prevent HIV infection. 103 (88%) agreed that consistent use of condom could prevent HIV infection. There was no statistical significant association with gender (p value 0.62) and education (p value 0.38).

- 16% of the participants (19 of 117) thought mosquito bite can transmit HIV infection. There was no statistical significant association with gender (p value 0.35) and education (p value 0.18).
- 85% of the participants (100 of 117) were aware that, having single faithful uninfected partner would prevent HIV infection. The unmarried had better awareness compared with married (p value 0.01), and was statistically significant. The education (p value 0.15) and gender (p value 0.66) had no statistical correlation.
- Only 39% (46 of 117) participants felt that abstinence from sexual intercourse could prevent HIV infection. Women were not aware or didn't think that abstinence could prevent spread of HIV (p value 0.003), and was statistically significant. The education (p value 0.38) and marital status (p value 0.56) had no statistical significant association with awareness.
- 19 of the 117 participants (16%) felt that sharing a meal with HIV infected individual could transmit infection. The female gender (p value 0.002) and illiteracy (p value 0.03) were significantly associated with this misconception.
- Reuse of needles was not recognised as a mode of transmission by 20% (23 of 117) participants. All 23 participants failing to recognise this mode of transmission were educated (p value 0.002) and men (p value 0.11).

- 23 of 117 participants (20%) were not aware that healthy looking individuals could be infected with HIV. There was no statistical association with gender (p value 0.45), literacy (p value 1.0) or marital status (p value 0.14).
- 3 of the 11 women participants (27%) didn't recognise transmission of HIV during pregnancy, one of whom was educated. 15% of the participants (17 of 117) were not aware of transmission of HIV from pregnant mother to unborn child. The gender (p value 0.19), education (p value 0.15) and marital status (p value 0.42) were not statistically significant.
- Only 15 of 117 participants (13%) were aware of the confidential testing available for HIV infection. The unmarried were more aware of such testing facilities (p value 0.0001). There was no statistical significance with gender (p value 0.35) or education (p value 0.12).
- 76% of the participants were willing to share a meal with HIV infected individual. The gender of marital status was not significantly associated with the willingness. The illiterate were statistically more unwilling to share a meal (p value 0.0006).
- 106 out of 117 participants (91%) wanted the teachers or students newly detected with HIV infection to continue their current roles.
- 80% of the participants were willing to buy food from shopkeeper or food seller with HIV infection. There was no statistical correlation with gender, marital status or education.
- 67% of the participants (78 of 117) wanted to keep the HIV status of their family member secret. The illiterate (p value 0.04) and unmarried (p value 0.004) were more towards nondisclosure of the HIV status.

#### **Discussion:**

In study conducted by Maria et al<sup>3</sup> in Ecuador, 49.1% of 1732 workers had incorrect knowledge on HIV/AIDS transmission. In the current study >80% of the individuals had correct knowledge regarding the modes of transmission of infection. In study conducted by Yogita Rai et al<sup>4</sup> there was higher levels of awareness on modes of transmission of the HIV among the 300 research scholars at Banaras Hindu University. The female students and students from science background had a better understanding of the transmission of HIV. In our study the illiterate was less in number, but had similar level of knowledge as compared to educated.

In study conducted by Naveen et al<sup>5</sup> between 1997-2000, nursing students had various misconceptions on transmission of HIV. The respondents thought HIV is transmitted by hugging, shaking hands, mosquito bites, etc. In our study 16% of the participants thought mosquito bites and consumption of meals with HIV infected individuals could spread infection.

The study conducted in 2011 by Pratibha et al<sup>6</sup> showed a satisfactory understanding about modes of transmission of HIV among the secondary school students.

Anju Dubey et al<sup>7</sup> conducted awareness study among college blood donors about HIV transmission. The knowledge of HIV prevention and transmission was lesser than expected among the participants. Education level and male gender was associated with a better knowledge. The study also highlighted that there was still stigma

associated with HIV/AIDS. In current study the social stigma was less, but 67% wanted to keep the HIV status of their family secret. 76% were willing to share a meal with infected individual and 80% were willing to purchase food from shopkeeper with known HIV infection.

**Conclusion:**

The awareness about modes of transmission of HIV infection was fair across all educational status, marital status and gender. 27% of the women in child bearing age were not aware of the transmission HIV from pregnant mother to child,

which is worrying. 20% were not aware that reuse of needles could spread infection. Only 13% of the participants were aware of the confidential testing facility for HIV infection. This identifies the need to educate the public regarding availability of the confidential testing facility and prevention of mother to child transmission of HIV infection.

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**References:**

1. NACO annual report for the year 2014-15, NACO 2015. Available from: [http://naco.gov.in/NACO/Quick\\_Links/Publication/Annual\\_Report/](http://naco.gov.in/NACO/Quick_Links/Publication/Annual_Report/)
2. Paul E Terry, MarvelousMhloyi, TsistsiMasvaure, Susan Adlis. An examination of knowledge, attitudes and practices related to HIV/AIDS prevention in Zimbabwean university students: Comparing intervention program participants and non-participants. *International Journal of Infectious diseases* 2006, 10: 38-46.
3. Cabezas et al. A cross-sectional study to assess knowledge about HIV/AIDS transmission and prevention measures in company workers in Ecuador. *BMC Public Health* 2013, 13: 139
4. Yogita Rai, Jyoti Singh, Tanusree Dutta, JS Tripathi. Awareness about prevention and transmission of HIV/AIDS among people getting higher education. *Indian J Prev Soc Med* 2009, 40(1): 43-49.
5. Naveen KG et al. Knowledge and awareness of nursing students about HIV/AIDS. *Health and Population: Perspectives and Issues* 2010, 33(1): 55-60.
6. Gupta P, Anjum F, Bhardwaj P, Srivastav J, Zaidi ZH. Knowledge about HIV/AIDS among secondary school students. *N Am J Med Sci.* 2013;5(2):119–123.
7. Anju Dubey, AtulSonker, Rajendra K Chaudhary. Knowledge, attitude, and beliefs of young, college student blood donors about Human immunodeficiency virus. *Asian J TransfusSci* 2014, 8(1): 39-42.