

# A study to assess the prevailing misconception on HIV/AIDS among rural population

Anand R. G<sup>1</sup>, Maheshwari S. L<sup>2</sup>, Sujatha K<sup>3</sup>

<sup>1</sup>Dr. R. G. Anand, Assistant Professor, Department of Community Medicine, ACS Medical College & Hospital,

<sup>2</sup>Dr. S. Latha Maheswari, Assistant Professor, Department of Community Medicine, Govt Stanley Medical College,

<sup>3</sup>Dr. K. Sujatha, Assistant Professor, Department of Community Medicine, Coimbatore Medical College, Coimbatore, India.

**Address for correspondence:** Dr. R. G. Anand, Email: dranandmbbsmd@rediffmail.com

## Abstract

**Introduction:** HIV, the human immunodeficiency virus, is the virus that causes AIDS. For many reasons, AIDS is a disease that commonly misunderstood disease and as a result, unduly feared, but the weapon against fear is knowledge. Objective is to assess knowledge and the status of prevailing misconception of HIV/AIDS in the rural population of Venkatachalam PHC area. **Methods & Material:** Community based descriptive cross sectional study among people aged more than 13 years, using cluster sampling technique, 1332 samples were selected. A pretested structured questionnaire was administered. **Results:** It was found that 452 (34.02%) of the study population had the misconception that HIV/AIDS can be transmitted by mosquito bites and 157 (12.00%) thought that HIV/AIDS can be transmitted by just talking to HIV/AIDS affected person. In the age group of 44-53, 40 (31.0%) thought that HIV was transmitted through mosquito bite while 16 (12.4%) thought that HIV/AIDS was transmitted by shaking hands, talking and caring for HIV/AIDS affected persons. The prevalence of misconception with regards to modes of transmission was high even among the professionals and skilled laborers. **Conclusion:** It can be concluded from the study that only 30% of the study population knew that HIV is a virus; 54% of the subjects knew all the 4 modes of transmission where as 22.40% had no knowledge about all the modes of Transmission.

**Key words:** HIV/AIDS, Misconception, Community Based, Rural Population

## Introduction

AIDS (Acquired immunodeficiency syndrome) is a severe disease syndrome that represents the late clinical stage of infection with HIV (human immunodeficiency virus). As the second most populous nation in the world, even a small increase in India's HIV/AIDS prevalence rate will represent a significant component of the world's HIV/AIDS burden. According to HIV sentinel surveillance 2011, adult HIV prevalence was 0.27% at the national level and Andhra Pradesh has the highest HIV prevalence of 0.75% and it is accounting for 20% AIDS patients in India [1]. AIDS prevention largely depends on health education and behavioral changes based on AIDS awareness. Ignorance of the disease and of the mode of transmission of the virus can generate fear and prejudice against those who are

infected and those who are providing care to the patients living with HIV/AIDS. Apart from having a chronic debilitating course, the social stigma attached to the proclamation of HIV sero-positivity usually forces the individual to change job or place of living. One of the important facets concerning home based care of HIV affected individuals is the stigma attached to the condition. This is of utmost concern because it is both the cause and effect of secrecy and denial, which are both reasons for HIV transmission. This stigma still remains a formidable barrier to testing even where treatment is available [2]. So, by assessing the prevailing knowledge with respect to the misconception of HIV/AIDS in the community, we can delineate the role the community, the need to take effective control of the situation. In a study by Sudha RT, et al (2005) to assess the awareness, attitudes, and beliefs of the general public toward HIV/AIDS in Hyderabad, the

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capital city of Andhra Pradesh, it was observed that approximately 80.63% (645/800) of the study population were sketchily aware of HIV/AIDS, but had incorrect perceptions about the mode of transmission or prevention [3].

## Objective

To assess knowledge and the status of prevailing misconception of HIV/AIDS in the rural population of Venkatachalam PHC area

## Materials and Methods

This is a community based descriptive cross sectional study. The study was conducted in Venkatachalam PHC, Nellore Dist., Andhra Pradesh among people aged

more than 13 years. Using Cluster sampling technique, 1332 samples were selected. Questionnaire for assessing the knowledge pertaining to prevailing known misconceptions with respect to HIV/AIDS in the community was prepared and pre tested Venkatachalam village during pilot study.

Then, a pretested structured questionnaire was administered to the households aged above 13 years to assess the status of prevailing known misconceptions about HIV/AIDS. The age was verified against the voters list, driving license, and birth certificates.

**Statistical Analysis:** Chi-square test is used to test the significance difference between the knowledge with respect to sex, marital status, literacy and occupation.

## Results

It was observed from the table that 452 (34.02%) of the study population had the misconception that HIV/AIDS can be transmitted by mosquito bites and 157(12.00%) of the study population thought that HIV/AIDS can be transmitted by

**Table-1: Age Group and Prevailing Misconceptions**

Misconceptions with regard to mode of transmission	13-23 (n=374)	24-33 (n=462)	34-43 (n=290)	44-53 (n= 129)	>53 (n=77)	Total (n=1332)
Public toilets	74(19.8%)	89(19.3%)	72(24.8%)	24(18.6%)	16(20.8%)	275(20.00%)
Mosquito bites	138(36.9%)	158(34.2%)	97(33.4%)	40(31.0%)	19(24.7%)	452(34.02%)
Donating blood	75(20.1%)	71(15.4%)	58(20.0%)	15(11.6%)	14(18.4%)	233(17.00%)
Caring	43(11.5%)	65(14.1%)	56(19.3%)	16(12.4%)	11(14.3%)	191(14.00%)
Shaking hands	40(10.7%)	58(12.6%)	52(17.9%)	16(12.4%)	13(16.9%)	179(13.18%)
Sharing meals	47(12.6%)	61(13.2%)	53(18.3%)	18(14.0%)	14(18.2%)	193(14.08%)
Talking	30(8.0%)	48(10.4%)	50(17.2%)	16(12.4%)	13(16.9%)	157(12.00%)

just talking to HIV/AIDS affected person. The same was true to the extent of 138 (36.9%) & 30 (8.0%); 158 (34.2%) & 48 (10.4%); 97 (33.4%) & 50 (17.2%); in the age groups of 13-23, 24-33, 34- 43 respectively. In the age group of 44-53, 40 (31.0%) thought that it was transmitted through mosquito bite while 16 (12.4%) thought that HIV/AIDS was transmitted by shaking hands, talking and caring for HIV/AIDS affected persons. Among those aged 53 years and over, 19 (24.7%) thought that HIV/AIDS can be transmitted by mosquito bites and 11 (14.30%) thought that HIV/AIDS can be transmitted by caring for those affected with HIV/AIDS.

**Table-2: Sex and Prevailing Misconceptions.**

Misconceptions with regard to mode of transmission	Male (n= 858)	Female (n= 474)
Public toilets	172(20.0%)	103(21.9%)
Mosquito bites	291(33.9%)	161(34.1%)
Donating blood	162(18.9%)	71(15.0%)
Caring	129(15.0%)	62(13.1%)
Shaking hands	126(14.7%)	53(11.2%)
Sharing meals	131(15.3%)	62(13.1%)
Talking	116(13.5%)	41(8.7%)

Numbers in parenthesis denote percentage of n

From the table it was revealed, the misconception that HIV/AIDS can be transmitted by mosquito bites was 291(33.9%) and 161(34.10%) among males and females respectively. One hundred and sixteen of males and 41(8.7%) of females thought that it was transmitted through talking to HIV/AIDS affected persons.

**Table- 3: Education and Prevailing Misconceptions.**

Misconceptions with regard to mode of transmission	Not literate (n=335)	Primary (n=89)	Secondary (n=157)	Higher secondary (n=470)	PUC (n=171)	Graduate (n=98)
Public toilets	29(8.7%)	22(24.7%)	38(24.4%)	135(28.7%)	37(21.6%)	14(14.3%)
Mosquitoes	55(16.4%)	27(30.3%)	57(36.3%)	202(43.0%)	71(41.5%)	39(39.8%)
Donating blood	27(8.1%)	15(16.9%)	27(17.2%)	118(25.1%)	33(19.3%)	12(12.2%)
Caring	29(8.7%)	15(16.9%)	23(14.6%)	97(20.6%)	23(13.5%)	4(4.1%)
Shaking hands	26(7.8%)	12(13.5%)	24(15.3%)	94(20.0%)	19(11.1%)	4(4.1%)
Sharing meals	29(8.7%)	12(13.5%)	25(15.9%)	99(21.1%)	23(13.5%)	5(5.1%)
Talking	25(7.5%)	11(12.4%)	23(14.6%)	84(17.9%)	10(5.8%)	4(4.1%)

Numbers in parenthesis denote percentage of n

(There were only 2 post graduates having misconceptions).

It was observed that among the “illiterate” in the study population 55 (16.4%) had the misconception that HIV/AIDS can be transmitted by mosquito bite and 25 (7.5%) thought that it can be transmitted talking to HIV/AIDS affected persons. The same was true to the extent of 27 (30.3%) & 11 (12.4%); 57 (36.3%) & 23 (14.6%); 202 (43.0%) & 84 (17.9%); 71 (41.5%) & 10 (5.8%); 39 (39.8%) & 4 (4.1%) among the primary, secondary, higher secondary, PUC and graduates respectively. It shows that the misconceptions are comparatively low in not literate groups when compared to other levels of education this is because majority of the not literate people neither had correct knowledge nor misconceptions.

**Table-4: Occupation and Prevailing Misconceptions**

Occupation	Toilet	Mosquitoes	Donating blood	Caring	Shaking hands	Sharing meals	Talking
Well to do trading and agricultural class(n=87)	30 (34.48%)	54 (62.06%)	27 (31.03%)	22 (25.28%)	20 (22.98%)	22 (25.28%)	18 (20.68%)
Professional worker of intermediate class (n=53)	8 (15.09%)	19 (35.84%)	6 (11.32%)	4 (7.54%)	3 (5.26%)	3 (5.26%)	3 (5.26%)
Intermediate trading & agricultural class (n=345)	94 (27.24%)	133 (38.55%)	88 (25.50%)	78 (22.60%)	75 (21.73%)	77 (22.31%)	68 (19.71%)
Small traders & agriculturists(n=298)	45 (15.10%)	80 (26.84%)	47 (15.77%)	36 (12.08%)	35 (11.74%)	36 (12.08%)	32 (10.73%)
Skilled artisans & analogues workers (n=57)	8 (14.03%)	16 (28.07%)	4 (7.01%)	4 (7.01%)	4 (7.01%)	5 (8.77%)	2 (3.50%)
Partly agriculturists, labourers& other unskilled workers (n=492)	89 (18.08%)	149 (30.28%)	60 (12.19%)	47 (9.55%)	42 (8.53%)	50 (10.16%)	34 (6.91%)

Numbers in parenthesis denote percentage of n

It was observed that among well to do trading and agricultural class, 54 (62.06%) had the misconception that HIV/AIDS can be transmitted through mosquito bites and 18 (20.68%) thought that it can be transmitted by talking to HIV/AIDS affected persons. The same was true to the extent of 19 (35.84%) & 3 (5.26%); 133 (38.55%) & 68 (19.71%); 80 (26.84%) & 32 (10.73%); 16 (28.07%) & 2 (3.50%); 149 (30.28%) & 34 (6.91%) among Professional worker of intermediate class, Intermediate trading & agricultural class, Small traders & agriculturists, Skilled artisans & analogues workers and Partly agriculturists, laborers& other unskilled workers respectively.

**Table-5: Misconception with respect to modes of transmission of HIV/AIDS.**

Misconception with respect to modes of transmission	Present	Not present	Do not know	Total
1) Using public toilets	276(20.7%)	530(39.8%)	526(39.5%)	1332(100%)
2) Mosquito bites	<b>453(34%)</b>	375(28.1%)	504(37.8%)	1332(100%)
3) By donating blood	234(17.6%)	634(47.6%)	464(34.8%)	1332(100%)
4) Caring for an HIV infected person	192(14.4%)	664(49.8%)	476(35.7%)	1332(100%)
5) Shaking hands/embracing	179(13.4%)	682(51.2%)	471(35.3%)	1332(100%)
6)Sharing meal with infected person	193(14.5%)	664(49.8%)	475(35.6%)	1332(100%)
7)Talking with infected person	157(11.8%)	707(53%)	468(35.1%)	1332(100%)

**N= 1332** Numbers in parenthesis denote percentage of N.

It was observed that 276 (20.7%) of the study subjects said that HIV/AIDS can be transmitted by using public toilets, 453 (34.7%) of the study subjects said that HIV/AIDS can be transmitted by Mosquito bites. It was observed that 234 (17.6%) of the study subjects said that HIV/AIDS can be transmitted by donating blood, 192 (14.4%) of the study subjects said that HIV/AIDS can be transmitted by Caring for an HIV infected person, 179 (13.4%) of the study subjects said that HIV/AIDS can be transmitted by Shaking hands/embracing, 193 (14.5%) of the study subjects said that HIV/AIDS can be transmitted by Sharing meal with infected person, 157 (11.8%) of the study subjects said that HIV/AIDS can be transmitted by Talking with infected person.

## Discussion

In the present study, 452 (34.02%) of the study population had the misconception that HIV/AIDS can be transmitted by mosquito bites and 157 (12.00%) of the study population thought that HIV/AIDS can be transmitted by just talking to HIV/AIDS affected person. In the age group of 44-53, 40 (31.0%) thought that it was transmitted through mosquito bite while 16 (12.4%) thought that HIV/AIDS was transmitted by shaking hands, talking and caring for HIV/AIDS affected persons.

Payal Mahajan and Neeru Sharma (2005) in their study for assessing the Awareness Level of Adolescent Girls Regarding HIV/AIDS (A Comparative Study of Rural and Urban Areas of Jammu) attempted to determine the knowledge level of adolescents towards HIV/AIDS [4]. Chi-square values revealed that there is a significant difference in the knowledge level of adolescent girls of urban and rural areas of Jammu, regarding these issues. But urban adolescent girls have comparatively better

knowledge regarding these issues than rural adolescent girls. Adolescents need to be taught about their body functions since ignorance perpetuates myths and misbelief. School teachers play a key role in bringing about this desirable change and socially acceptable approaches to sex education such as letter box approach may be used for providing scientific knowledge about sex and related issues Rimjhim M. Aggarwal and Jeffrey J. Rous (2006) in their study about awareness and quality of knowledge regarding HIV/AIDS among women in India examine the determinants of women's knowledge on HIV/AIDS using data from a nationally representative survey in India. Although around 45 per cent of sample women had heard about the disease, their knowledge regarding its modes of transmission and prevention was found to be limited [5]. To explore the possibility that there may be a different process that determines awareness as opposed to quality of knowledge regarding HIV/AIDS, a negative binomial hurdle model and a two-stage ordered probit model are

estimated. The results show that the effect of several covariates, such as education and mass media, on awareness is different from their effect on quality of knowledge.

Centre for Disease Control (2001) have identified the following misconceptions with regards to HIV/AIDS [6]. They are, HIV/AIDS can be spread by using public toilets, mosquito bites, by donating blood, caring for an HIV positive person, shaking hands/embracing, sharing meals with infected person, talking with infected persons, no treatment for HIV/AIDS, child could become infected with HIV if he/she plays with a child who has HIV/AIDS, HIV can also be transmitted when you buy vegetables from a shop keeper or vendor living with HIV/AIDS.

In the present study however 453 (34%) thought that HIV/AIDS was transmitted through mosquito bites. It was found that the prevalence of misconception with regards to modes of transmission was high even among the professionals and skilled laborers.

Parallel to this study, Sanjay Sangole et al (2003) observed that 72% of his subjects thought that HIV could be transmitted via casual contact such as hugging, shaking hands, sharing foods, glasses, toilet seats, etc [7].

## Conclusion

It can be concluded from the study that only 30% of the study population knew that HIV is a virus; 54% of the subjects knew all the 4 modes of transmission where as 22.40% had no knowledge about all the modes of transmission.

The study has brought into light some of the important issues and immense and urgent efforts are needed towards making people more caring and accepting the People Living with HIV/AIDS, which can be mainly achieved through raising the levels of knowledge about HIV and its ways of transmission.

**Limitations:** The restriction in asking questions concerning sexual beliefs and behaviors as was observed in the pilot study, made me to slightly change the questionnaire.

## Recommendations

- A lot of misconceptions are prevailing in the community with respect to HIV/AIDS. So with these

prevailing misconceptions the home based care will be inappropriate at this stage in the community.

So, it has to be addressed by conducting a need based, targeted, and focused Information, Education and Communication activities in the villages as a priority primary measure.

- IEC activities should mainly focus on the modes of transmission of HIV/AIDS, the ways by which HIV/AIDS will not be transmitted like bite of a mosquito and finally it should emphasize on the methods of prevention of HIV/AIDS.

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