

**Original article:**

## **A study on HIV seroprevalence among various groups of women in Hyderabad, Telangana state, India**

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### **Abstract**

The aim of the study includes the incidence of seropositivity of HIV infection among women of the some categories Out of the 34 orphans homes inmates convicted for their immoral act 24 were HIV seropositive. Eleven were both HIV positive with reactive blood VDRL. Three cases were Trichomonas vaginalis infection positive along with the HIV seropositivity. It was found out of 300-125 (41.8%) are uneducated, 140 (46.8%) studied upto VI std. Thirty three (11%) studied upto preschool and 2 (0.66%) had gone upto College level education among the inmates of Orphans Home showing the poor education, the reason for the increased number of prostitution for their bread winning. At present the seropositivity and HIV infection is confined only to very high risk sexual behaviour group and have not spread to general population.

Key words: HIV infection, seroprevalence, VDRL, Trichomonas vaginalis

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### **Introduction**

Health as well as disease has no political or geographical boundaries. Disease in one part of the world it's a constant threat to other part being transmitted from one place to another [1]. By the advent of better sanitation, provision of availability of effective vaccines almost all the communicable diseases are totally eliminated in developing countries and their incidence is under check in developing countries [1]. However after the advent of AIDS in the eighties several challenges problems have been thrown to the medical profession and the WHO to achieve the goal of Health for all. AIDS is the most serious manifestation of disease resulting from infection with Human deficiency virus. AIDS first diagnosed in western world in 1981 although with has been recognized retrospectively in the western world and Africa since 1970 [2]. In India

where the predominant model of Human Immunodeficiency virus transmission is by heterosexual intercourse. The female prevalence of infection has been found among female prostitutes and the next highest among the men who frequent female prostitutes [3]. For reasons yet not known Asia appears to be the continent last and least affected by Human Immunodeficiency virus infection and hence India and other countries of the region have the opportunity of initiating intervention programmes to contain and control the HIV infection epidemic at an early stage before the infection becomes widespread [3]. The aim of the study includes the incidence of seropositivity of HIV infection among women of the following categories. Females attending department of STD, Girls in the vigilance home group, Inmates of prison, Antenatal mothers attending the maternity hospital Afzalgunj,

Hyderabad and to compare the prevalence of HIV infection among the group above studied.

**Material and methods**

For the study, 300 females who attended the department of STD were detected in routine and were included. Visits were made to the orphan home and

300 inmates were selected. 300 pregnant mothers at various trimesters attending the maternity hospital were also included. Serological testes for the presence of antibody to HIV by ELISA. In all positive samples, ELISA was done and all positive sera were subjected to western blot test.

Table No. 1 SHOWING THE HIV SEROPOSITIVE AMONG THE VARIOUS GROUPS OF FEMALES INCLUDED IN THE STUDY

VARIOUS GROUPS OF STUDY	ELISA POSITIVE	PERCENTAGE
ORPHAN HOME (300)	59	19.66
FVD. OP (300)	6	2
ANC(300)	NIL	NIL
JAIL(50)	NIL	NIL

Table No. 2 SHOWING MARITAL STATUS OF THE FEMALES INCLUDED IN THE STUDY

VARIOUS GROUPS OF STUDY	SINGLE		MARRIED		DESERTED		WINDOW	
	TOTAL	%	TOTAL	%	TOTAL	%	TOTAL	%
ORPHAN HOME (300)	72	24	96	32	132	44	-	-
FVD. OP (300)	75	25	189	63	22	7.44	14	4.66
ANC(300)	-	-	285	95	15	5	-	-
JAIL(50)	-	-	20	40	27	54	3	6

Table No. 3 SHOWING EDUCATIONAL STATUS OF THE VARIOUS GROUPS OF FEMALES INCLUDED IN THE STUDY

VARIOUS GROUPS OF STUDY	UNEDUCATED		UPTO VI		VII-HIGH SCHOOL		COLLEGE	
	TOTAL	%	TOTAL	%	TOTAL	%	TOTAL	%
ORPHAN HOME (300)	125	41.8	140	46.8	33	11	2	0.66
FVD. OP (300)	75	25	100	33.3	105	35	20	6.6
ANC(300)	60	20	120	40	108	36	12	4
JAIL(50)	30	60	18	36	2	4	-	-

Table No. 4 SHOWING THE INCOME WISE VARIOUS GROUPS OF FEMALES INCLUDED IN THE STUDY

VARIOUS GROUPS OF STUDY	BELOW Rs.200		UPTO Rs.500		ABOVE Rs. 500	
	TOTAL	%	TOTAL	%	TOTAL	%
ORPHAN HOME (300)	181	60.3	97	32.3	32	7.3
FVD. OP (300)	120	40	150	50	30	10
ANC(300)	140	47.7	121	40.3	39	13
JAIL(50)	35	70	15	30	-	-

Table No. 5 SHOWING THE CONDOM – USERS AMONG THE VARIOUS GROUPS OF FEMALES INCLUDED IN THE STUDY

VARIOUS GROUPS OF STUDY	CONDOM USING PARTNER	PERCENTAGE
ORPHAN HOME (300)	5	1.6
FVD. OP (300)	6	2
ANC(300)	10	3.3
JAIL(50)	Nil	Nil

Table No. 6 SHOWING THE AGE WISE DISTRIBUTION OF VARIOUS GROUPS OF FEMALES INCLUDED IN THE STUDY

VARIOUS GROUPS OF STUDY	13 – 15		16 – 20		21 – 25		26 – 30		31 – 40		ABOVE 40	
	TOTAL	%	TOTAL	%	TOTAL	%	TOTAL	%	TOTAL	%	TOTAL	%
ORPHAN HOME (300)	4	1.3	60	20	100	33.3	74	24.6	55	18	8	2.6
FVD. OP (300)	22	7.3	57	19	71	24	89	30	17	6	44	15
ANC(300)	-	-	18	6	102	30.4	170	56.6	10	3.3	-	-
JAIL(50)	2	4	4	8	2	4	10	20	12	24	20	40

TABLE No. 7 SHOWING THE VARIOUS STUIDES AMONG THE FEMALES IN THE STUDY GROUP

VARIOUS GROUP OF STUDY	SY	GON	T.V	M.C	GENITAL HERPES	GENITAL WARTS	HIV
Conviction(34)	16	4	3	-	-	-	24
S.S (21)	1	-	-	-	-	-	1
Memo Case (225)	69	6	-	-	-	-	15
Hyderabad prostitutes (20)	17	-	-	-	-	-	19
FDVOP (300)	29	-	27	-	3	2	6
Jail Inmates (50)	5	-	-	-	-	-	-

**Results and discussion**

Table1 shows the prevalence of HIV seropositivity among the various groups of women during the study period. Out of the 34 orphans homes inmates convicted for their immoral act 24 were HIV seropositieve. 11 were both HIV positive with reactive blood VDRL. Three cases were trichomonas vaginalis infection positive along with the HIV seropositivity. Out of the 21 Sri Sadhanavoluntary admissions only one is HIV seropositive along with reactive blood VDRL and TVV. Among the other study females attending STD out of 300, six were HIV seropositive. All of them were married and out of the six, five were having reactive blood VDRL. Only patient has trichomonas infection (Table 2). In Table III, it was found out of 300-125 (41.8%) are uneducated, 140 (46.8%) studied upto VI std. 33(11%) studied upto preschool and 2 (0.66%) had gone upto College level education among the inmates of Orphans Home showing the poor education the reason for the increased number of prostitution for their bread winning. In STD female patients out of 300, 75 (25%) were uneducated, 100 (33.3%) studied upto VI Std., 105 (35%) upto High School and 20 (6.6%) has gone upto college level. Among ANC out of 300 60 (20%) were uneducated; 120 (40%) studied

upto VI Std., 108 (36%) upto High School and 12 (4%) had gone to college. Among the inmates of jail out of 50 03 (60%) were uneducated 18 (36%) studied upto VI Std., 2(4%) upto pre-school and nobody entered to the college level education. This shows our female population’s literacy state and need for their education. In the socioeconomical status out of 300 Orphans Home inmates 1818 (60.3%) earn upto Rs.500 per month and %0 (10%) earn more than 500 per month. The early reflects the main cause for the prostitution the low socio economic status. Among %00 FDV.OP patients 120 (40%) earn upto 200 per month. 150 (50%) earn upto Rs. 500 per month and %0 (10%) earn more than 500 per month. The low socio-economic status here makes the increasing number of STD cases. In ANC out of 300-140 (46.7%) earn upto Rs.200-121 (40.3%) earn upto Rs. 500 and 39 (13%) earn more than Rs. 500 per month. Among the jail inmates 35 (75%) earn upto Rs. 200-15 (30%) earn upto 500 and they don’t earn more than 500 per month, clearly showing their low-socio economic status for their illegal activities (Table 4).

Table 5 shows among 300 Orphan Homes inmates only 5 of their partners (1.6%) use condom; likewise among 300 FDV.OP patients only 6 of their partners

(2%) use condom. Among ANC 300 only 10 (3.3%), partners use condom. Among jail inmates none of their partners use condom. On analysing the results of the present study, it shows the low socio-economic state of the patients made them to harbour more STDs and HIV infection comparatively than the middle class and upper class/people. The education also plays a part among the spread of STDs and HIV infection. Among the Illiterate group the occurrence of STDs and HIV infection are more comparing with the educated group of people. Mostly the HIV Infection occurs between 20-30 years of age group. In vigilance orphan home inmates out of 300-4 (1.3%) belong to 13-15 age group, 60 (20%) belong to upto 20 years category, 100(33.3%) were between 21-15 years of age group, 74 (24.6%) belong to 26-30 years, 55 (18%) upto 40 years 8 (2.6%) is above 40 years 16. In FDV.OP 22 (7.3%) belong to 13 to 15 years, 18 (6%) belong to 13 to 15 years, 18 (6%) belong to 16 to 20, 102 (13.4%) belong to 21 to 25 years, 170 (56.6%) belong to 26 to 30 years, 10 (3.3%) belong to 31 to 40 years. Among 300 ANC 16 (6%) belong to 16 to 20 years 102 (30.4%) belong to 21 to 25 years 170 (56.6%) belong to 26 to 30 years,

10 (3.3%) belong to 31 to 40 years. Among 50 jail inmates 2 (4%) belong to 13 to 15 years 4 (8%) belong to 16 to 20 years 2 (4%) belong to 21 to 25 years 10 (20%) belong to 26 to 30 years 12 (24%) belong to 31 to 40 years 20 (40%) belong to above 40 age group (Table 6, 7). Among FDV.OP 300,75 (25%) were single 189 (63%) were married, 132 (44%) were married. 22 (7.33%) were deserted and 14 (4.66%) were window. Among ANC 300 285 (95%) were married and 15 (5%) were deserted. Among 50 jail inmates 20 (40%) were married, 27 (54%) were deserted and 3 (6%) were window.

### Conclusion

A serosurveillance for HIV infection among 300 inmates of Orphan Home, 300 females attending STD OP, 300 Antenatal mothers and 50 females inmates of prison were carried out. The incidence of seropositivity was 19.6% among the inmates of Orphans Home, 2% among the females attending STD OP and there was no seropositivity among inmates of prison and antenatal mothers at present. At present the seropositivity and HIV infection is confined only to very high risk sexual behaviour group and have not spread to general population.

### References

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