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Dermatology

PROSPECTIVE STUDY OF HIV IN 350 TRANSGENDER INDIVIDUALS.

Dr M Sreevallika Devi MD DVL, Assistant Professor, dept of DVL,GMC Nandyal.

Dr JChKLP Kishore MD DVL, Associate Professor, dept of DVL,GMC Nandyal.

ABSTRACT Transgender individuals face a disproportionately high burden of HIV globally and in India. They are considered a key population due to various intersecting vulnerabilities. In India, while the overall adult HIV prevalence has declined, the epidemic remains concentrated and significantly higher among transgender people compared to the general population. For instance, in 2021, HIV prevalence among transgender people in India was reported at **3.8%**, which is almost 20 times the national average.HIV-positivity among the H/TG people has drastically reduced from 29.6% in 2006 to **3.41% in 2017**, but still remains high in comparison to other core HRGs, excluding IDUs.

KEYWORDS : HIV, Transgender, India, Prospective Study, Prevalence, Risk Factors, Health Disparities.

INTRODUCTION:

In India, despite significant national progress in curbing the overall HIV epidemic (with adult prevalence at 0.20% in 2023), the prevalence among transgender people remains notably elevated, reported at 3.3% in 2024 by UNAIDS (citing HSS 2024 data), and previously at 3.1% in 2019. This heightened vulnerability among transgender individuals in India is multi-faceted, stemming from a complex interplay of systemic stigma, discrimination, violence, limited access to gender-affirming healthcare, and socio-economic marginalization. These factors often lead to reduced engagement in HIV prevention and testing services, delayed treatment initiation, and poorer adherence to antiretroviral therapy (ART). Andhra Pradesh, in particular, has historically been identified as a state with a higher overall HIV prevalence (0.62% in 2023) compared to the national average, underscoring the importance of localized data and interventions. While recent cross-sectional studies, such as one conducted in Kakinada (2022-2023), have indicated a HIV positivity rate of 6.9% among transgender individuals in specific urban areas, comprehensive prospective data on HIV incidence and associated risk factors within this population in the state remains scarce. Understanding the dynamics of new HIV infections (incidence) and the specific factors driving them over time is crucial for developing effective, culturally sensitive, and targeted public health interventions. Most existing data are cross-sectional, providing only a snapshot of prevalence, which limits the ability to identify modifiable risk factors and evaluate the effectiveness of prevention strategies.

This prospective cohort study aims to address these critical gaps by investigating the incidence of HIV and its associated determinants among a cohort of 350 transgender individuals in Andhra Pradesh. By providing robust longitudinal data, this research seeks to inform evidence-based strategies to reduce HIV transmission, improve health outcomes, and promote the overall well-being and human rights of the transgender community in the region.

AIM AND OBJECTIVES:

Aim:

To prospectively determine the incidence of HIV and identify associated demographic, behavioral, social factors among transgender individuals in Andhra Pradesh, India.

Objectives:

1. To estimate the incidence rate of new HIV infections within the study cohort of 350 transgender individuals over the study period.
2. To identify and characterize the demographic, sexual, substance use, and healthcare-seeking behaviors associated with HIV acquisition.
3. To assess the influence of experiences of stigma, discrimination, and violence on HIV vulnerability and health outcomes.
4. To provide evidence-based recommendations for the development and implementation of targeted HIV prevention and care programs tailored to the specific needs of the transgender community in Andhra Pradesh.

MATERIAL AND METHODS:

In a prospective cohort study of 350 HIV-negative transgender individuals are enrolled using community-based outreach, and are aged 18 years and above in Nandyal, Andhra Pradesh .

Inclusion Criteria:

Self-identified as transgender (including Hijras, Aravanis, Kothis, or other gender identities along the Trans feminine spectrum).
Aged ≥ 18 years.
HIV-negative at baseline, confirmed by laboratory testing.
Willing and able to provide informed consent.
Residing in the study area and intending to remain there for the duration of the study.

Exclusion Criteria:

Known HIV-positive status at baseline.
Individuals unwilling or unable to provide informed consent.
Individuals with severe acute illness requiring immediate hospitalization.

Participants will be followed for 12-month from October 2023 to September 2024. After obtaining comprehensive behavioral surveys (including sexual practices, substance use, access to healthcare, and gender-affirming care), and clinical assessments for sexually transmitted infections (STIs) all participants are tested for HIV infection in ICTC (Integrated Counseling and Testing Centre) in Government general Hospital, Nandyal. Data will be analyzed using appropriate statistical methods, including survival analysis to estimate HIV prevalence. Ethical considerations, including informed consent, confidentiality, and referral to care, are the paramount of the study.

OBSERVATION AND DISCUSSION:

Table -1 Age Wise Distribution Of Transgender Individuals Attended For Study

Age (in years)	No Of Transgender Individuals	Percentage
<20	20	5.7 1%
20-24	50	14.29 %
25-29	80	22.86 %
30-34	90	25.71 %
35-39	60	17.14 %
>40	50	14.29 %
Total	350	100 %

Age wise number of Transgender individuals attended for the study.

Table -2 Prevalence Of HIV Infection In Transgender Individuals

Total number of Transgender individuals attended	Total number of Transgender individuals screened for HIV	No of sero positive	prevalence
350	350	2	0.57 %

Out of 350 transgender individuals attended for study all are screened for HIV. Total 2 Transgender individuals are diagnosed HIV Positive. Prevalence was 0.57 %.

Table – 3 Age Wise Distribution Of HIV Infection In Transgender Individuals

Age (in years)	Total transgender individuals tested	No of HIV Positives	%
<20	20	0	0
20-24	50	0	0
25-29	80	1	1.25 %
30-34	90	1	1.11 %
35-39	60	0	0
>40	50	0	0

In our study, one transgender individual was between 25-29 age group and another individual was between 30-34 age group.

Table – 4 Possible Mode Of Transmission Of HIV Infection In Transgender Individuals

Mode of Transmission	No of HIV Positive Patients	%
Sexual route	2	0.2
Blood transfusion	0	0
IV drug use	0	0
others	0	0

In present study 2 patients had history suggestive of acquiring HIV infection through sexual route.

The most common route of acquiring HIV infection among female sex workers is by sexual route.

CONCLUSION:

At the end of study, conclusions are as follows:

- Prevalence of seropositivity in 350 transgender individuals is 0.57 %.
- Most of the patients were from 25-29 yrs and 30-35 yrs of age; reason being transgender individuals are sexually more active and vulnerable to the sexually transmitted infections.
- Most common route of HIV transmission is by sexual route. Hence education and condom promotion is important to reduce the prevalence of HIV.
- Transgender individuals represent a key population at elevated risk for HIV acquisition and transmission. Their heightened vulnerability is often attributed to a complex interplay of socio-economic factors, occupational hazards, stigma, discrimination, limited access to healthcare services, and imbalances that restrict their ability to negotiate safer sexual practices with clients.
- The findings underscore the critical and ongoing need for sustained, targeted, and comprehensive public health interventions. These efforts must simultaneously address behavioral risks, particularly those related to sexual transmission, and the fundamental underlying social determinants of health that disproportionately affect transgender communities
- Understanding the specific epidemiological patterns and risk factors within this cohort is paramount for developing effective and sustainable HIV prevention and care programs.

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