



PROSPECTIVE STUDY OF HIV IN 1000 FEMALE SEX WORKERS.

Dr JChKLP
Kishore

MD DVL, Associate Professor, dept of DVL, GMC-Markapuram.

ABSTRACT Female sex workers (FSWs) are a key population disproportionately affected by the HIV epidemic. While HIV prevalence among FSWs is well-documented, prospective studies are essential to understand HIV incidence, identify risk factors for sero conversion, and inform targeted prevention strategies. This study was conducted at GGH of GMC, Markapuram and directed towards prevalence of HIV Positive Female Sex Workers attending OPD at our institute, aims to prospectively investigate HIV incidence and associated risk factors among a cohort of FSWs.

KEYWORDS : HIV, Female Sex Workers, Incidence, Risk Factors, Prevention, Vulnerable Populations.

INTRODUCTION:

- HIV is a retrovirus belonging to subfamily of lent virus
- Human Immunodeficiency Virus (HIV) infection causes Acquired Immunodeficiency Syndrome (AIDS). AIDS is a disorder of the immune system in which the body's normal defense mechanism against infection breaks down leaving it vulnerable to life threatening infections and malignancy.
- HIV remains a formidable global public health challenge, disproportionately affecting vulnerable populations like female sex workers worldwide. Despite significant advancements in prevention, diagnosis, and treatment, the epidemic continues to evolve, necessitating targeted interventions and a deeper understanding of transmission dynamics within specific high-risk groups.
- Female sex workers (FSWs) 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 power imbalances that restrict their ability to negotiate safer sexual practices. Understanding the specific epidemiological patterns and risk factors within this cohort is paramount for developing effective and sustainable HIV prevention and care programs.

Modes of transmission of HIV are:

- Sexual route
 - Parenteral use (IV drug abuse, Blood Transfusion)
 - Mother to child transmission (vertical transmission)
 - Other routes (organ or tissue transplantation)
- In 2017, estimated prevalence of HIV in adult females of age group 15-49 yrs was 0.19%
 - In 2017 as per National AIDS Control Organization (NACO), no more than 1.6% of female sex workers in India had HIV.

AIMS AND OBJECTIVES:

This study aims to prospectively investigate HIV incidence and associated risk factors among a cohort of 1000 HIV-negative female sex workers.

The specific objectives are:

- To determine the incidence of HIV infection among female sex workers in the study cohort.
- To identify socio-demographic, behavioral, and structural factors associated with HIV sero conversion among FSWs.
- To assess the uptake and effectiveness of HIV prevention strategies among the study participants.

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MATERIALS AND METHODS:

- This is a prospective study of HIV positivity in 1000 female sex workers attending OPD at Government General Hospital Markapuram, Andhra Pradesh.
- The study period was from September 2023-August-2024.
- Voluntary HIV testing done at ICTC (Integrated Testing and Counseling Centre) after pre test counseling regarding HIV.
- Detailed general history and sexual history was noted.
- Patients were asked about the risk factors of HIV transmission like HIV status of general clients, occupation of the clients, history of multiple sexual partners, history of blood transfusion, history of IV drug abuse.

OBSERVATION AND DISCUSSION:

Table-1 Prevalence Of HIV Infection In 1000 Female Sex Workers

Total number of female sex workers attended OPD	Total number of female sex workers screened for HIV	No of sero positive	prevalence
1000	1000	2	0.2%

Out of 1000 female sex workers attending OPD, all were screened for HIV, total 2 female sex workers were diagnosed HIV positive. Prevalence was 0.2%.

Table -2 Age Wise Distribution Of HIV Infection In Female Sex Workers

Age (in years)	No of HIV Positives	%
<20	0	
20-24	0	
25-29	1	1
30-34	0	
35-39	1	1
>40	0	

In our study, 1 patient was between the age group of 25-29 yrs and another 1 patient was between the age group of 35-39 yrs.

Table -3 Possible Mode Of Transmission Of HIV Infection In Female Sex Workers

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 sero positivity in 1000 female sex workers is 0.2%.
- Most of the patients were from 25-29 yrs and 35-39 yrs of age; reason being female sex workers 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.

- Female sex workers (FSWs) 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.
- 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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