INTERNSHIP TRAINING

at

TCI FOUNDATION

STUDY OF KNOWLEDGE, ATTITUDE AND PRACTICES OF BRIDGE POPULATION (TRUCKERS AND MIGRANTS), HIGH RISK POPULATION (FEMALE SEX WORKERS) ON HIV/AIDS IN 5 STATES OF INDIA

by

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Enroll No.- PG/21/040

Under the guidance of

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PGDM (Hospital & Health Management)

2021-23

International Institute of Health Management Research,

New Delhi

To whom it may concern

(Completion of Dissertation from respective organization)

The certificate is awarded to

DR. JAGANJEET KAUR RANDHAWA

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STUDY ON KNOWLEDGE , ATTITUDE AND PRACTICES OF BRIDGE POPULATION (TRUCKERS AND MIGRANTS), HIGH RISK POPULATION (FEMALE SEX WORKERS) ON HIV /AIDS IN 5 STATES OF INDIA

Date – 1st Feb 2023- 30th April 2023

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He/She comes across as a committed, sincere & diligent person who has a strong drive & zeal for learning.

We wish him/her all the best for future endeavors.

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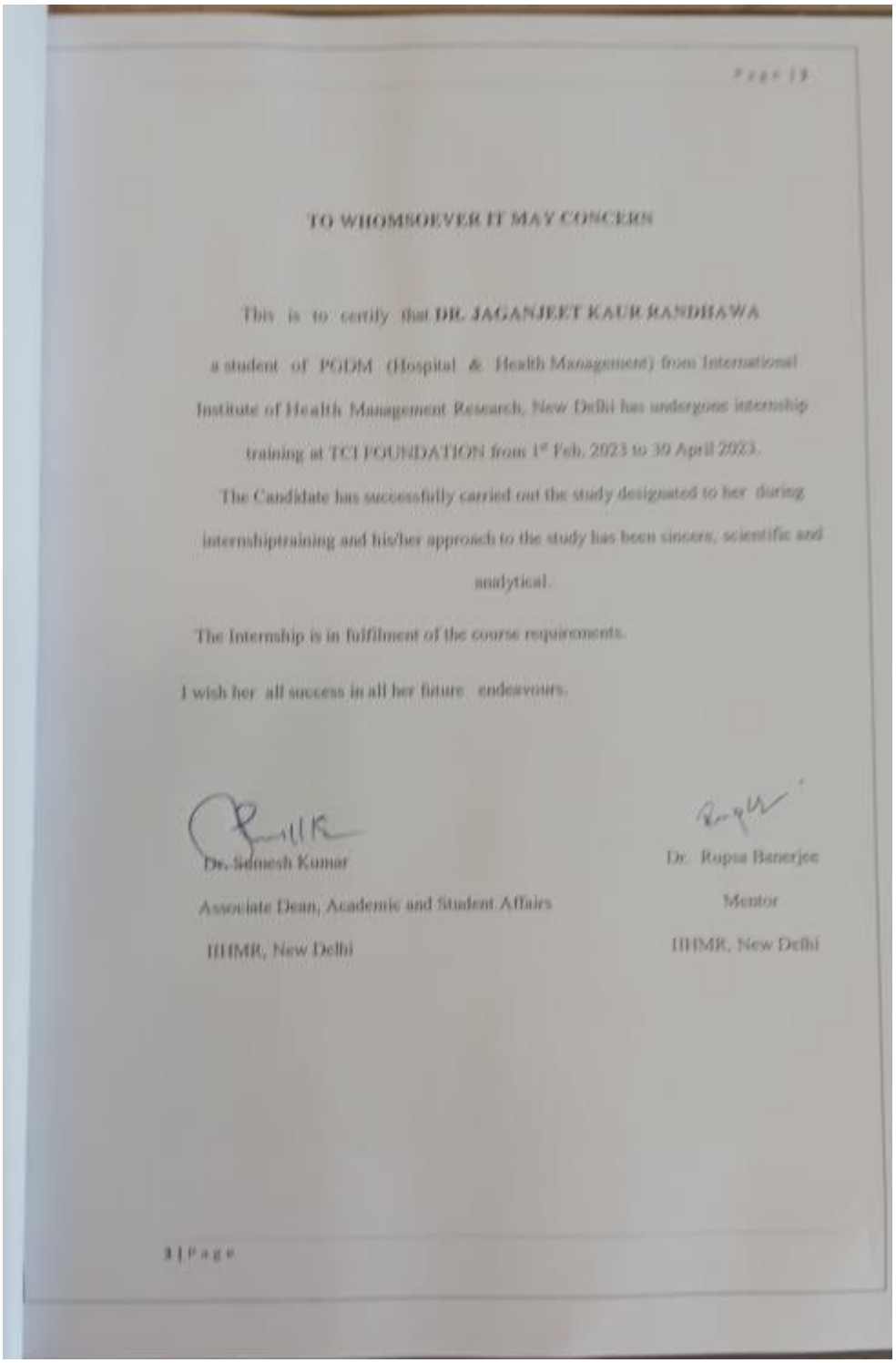

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This is to certify that **DR. JAGANJEET KAUR RANDHAWA** a student of PGDM (Hospital & Health Management) from International Institute of Health Management Research, New Delhi has undergone internship training at TCI FOUNDATION from 1st Feb. 2023 to 30 April 2023.

The Candidate has successfully carried out the study designated to her during internshiptraining and his/her approach to the study has been sincere, scientific and analytical.

The Internship is in fulfilment of the course requirements.

I wish her all success in all her future endeavours.

Dr. Sidnesh Kumar
Associate Dean, Academic and Student Affairs
IIHMR, New Delhi

Dr. Rupsa Banerjee
Mentor
IIHMR, New Delhi

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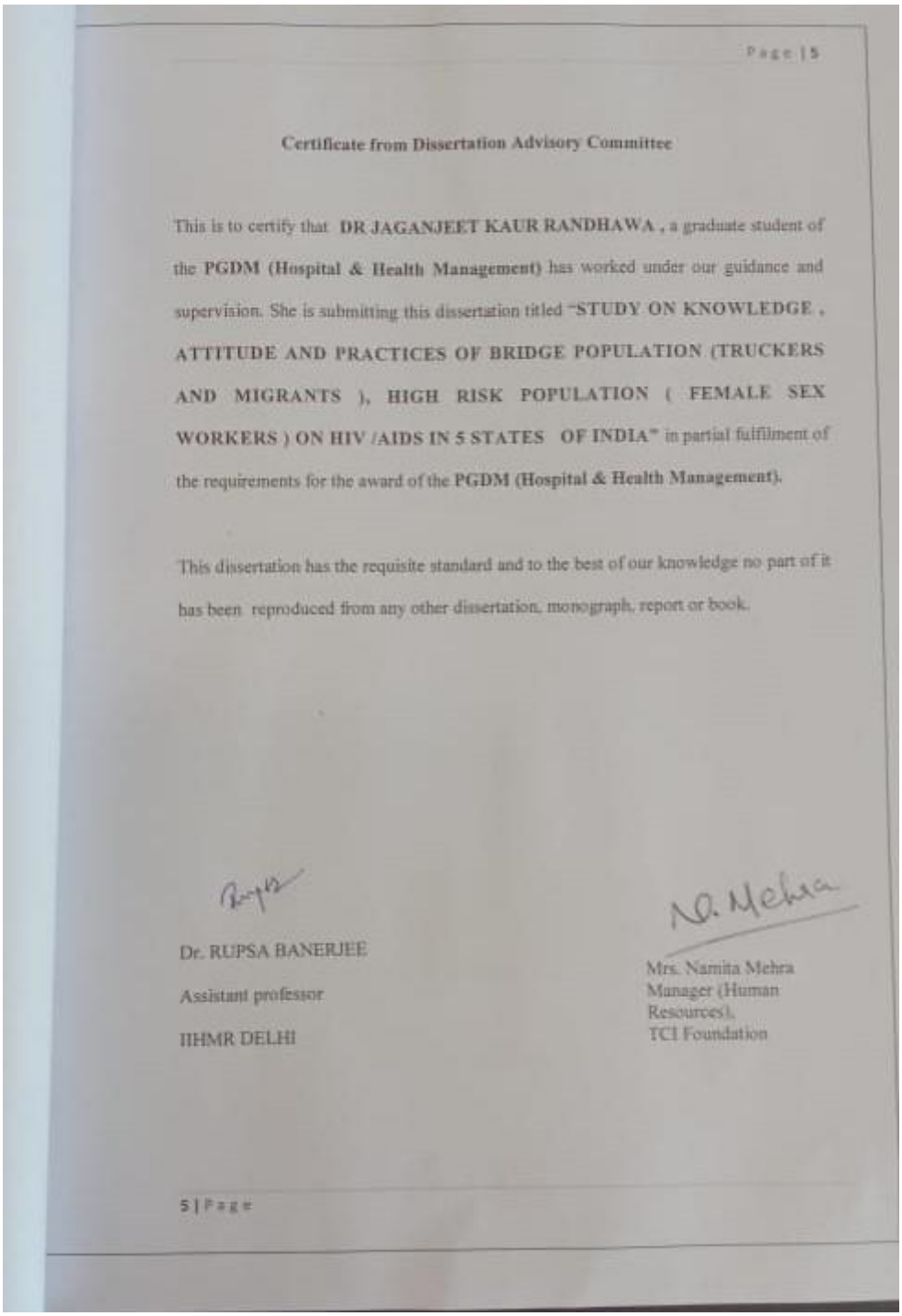
Certificate of Approval

The **following** dissertation titled **""A CROSS SECTIONAL STUDY ON KNOWLEDGE, ATTITUDE AND PRACTICES OF BRIDGE POPULATION (TRUCKERS AND MIGRANTS) AND HIGH-RISK POPULATIONS (FEMALE SEX WORKERS) ON HIV/AIDS IN 5 STATES OF INDIA"** is hereby approved as a certified study in management carried out and presented in a manner satisfactorily to warrant its acceptance as a prerequisite for the award of **PGDM (Hospital & Health Management)** for which it has been submitted. It is understood that by this approval the undersigned do not necessarily endorse or approve any statement made, opinion expressed or conclusion drawn therein but approve the dissertation only for the purpose it is submitted.

Dissertation Examination Committee
for evaluation of dissertation.

Name	Signature
Dr jaganjeet kaur Randhawa	



Certificate from Dissertation Advisory Committee

This is to certify that **DR JAGANJEET KAUR RANDHAWA** , a graduate student of the **PGDM (Hospital & Health Management)** has worked under our guidance and supervision. She is submitting this dissertation titled **"STUDY ON KNOWLEDGE , ATTITUDE AND PRACTICES OF BRIDGE POPULATION (TRUCKERS AND MIGRANTS), HIGH RISK POPULATION (FEMALE SEX WORKERS) ON HIV /AIDS IN 5 STATES OF INDIA"** in partial fulfilment of the requirements for the award of the **PGDM (Hospital & Health Management).**

This dissertation has the requisite standard and to the best of our knowledge no part of it has been reproduced from any other dissertation, monograph, report or book.

Dr. RUPSA BANERJEE
Assistant professor
IIHMR DELHI

Mrs. Namita Mehra
Manager (Human Resources),
TCI Foundation

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INTERNATIONAL INSTITUTE OF HEALTH MANAGEMENT RESEARCH,

NEW DELHI

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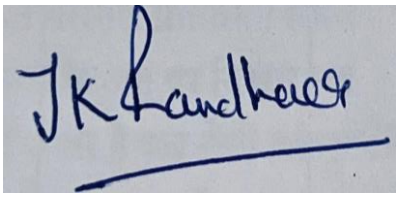
This is to certify that the dissertation titled **"STUDY ON KNOWLEDGE, ATTITUDE AND PRACTICES OF BRIDGE POPULATION (TRUCKERS AND MIGRANTS), HIGH RISK POPULATION (FEMALE SEX WORKERS) ON HIV /AIDS IN 5 STATES OF INDIA"** and submitted by **DR JAGANJEET KAUR RANDHAWA** , Enrollment No. **PG/21/040** under the supervision of **Dr. Rupsa Banerjee** for award of PGDM (Hospital & Health Management) of the Institute carried out during the period from **1ST February 2023** to **30 April 2023** embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.



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FEEDBACK FORM

Name of the Student	:	Dr. Jaganjeet Kaur Randhawa
Name of the Organisation in Which Dissertation Has Been Completed	:	TCI FOUNDATION
Area of Dissertation	:	TCI Foundation
Attendance	:	Regular
Objectives achieved	:	Yes
Deliverables	:	yes
Strengths	:	Leadership qualities Hardworking Good communication skills
Suggestions for Improvement	:	To learn more analytical skills
Suggestions for Institute (course curriculum, industry interaction, placement, alumni)	:	None

Signature of the Officer-in-Charge/ Organisation Mentor (Dissertation

Date: Place:

Acknowledgement

I am extremely thankful to every one of the experts at TCI FOUNDATION for sharing generously their valuable insight and precious time which motivated me to do my best during summer training. My learning and valuable insights regarding Dissertation Internship report would not have been possible without in-depth discussions. I express my gratitude towards them for providing timely guidance, inspiration & unconditional support during my study.

Mentors in IIHMR

I am highly grateful to Dr Rupsa Banerjee and all the faculty members and staff for giving me this opportunity to learn and to add to my phenomenal experience. Without their cooperation and guidance, it would not have been possible to conduct my study and complete my training successfully.

About the Organization

TCI Foundation, the social arm of Transport Corporation of India Limited (TCI), is committed to serve the nation with a motto of equality and better life for all citizens. The Foundation is in vanguard to support and assist the communities including less privileged in India by facilitating Health Services, Education, Community and Sports Development.

The Foundation is a registered entity under Indian Trust Act, 1882 and duly empowered by the Government of India under Section 12A and 80G of the Income Tax Act. It is an approved entity under Foreign Contribution Regulation Act, 2010 (FCRA) to receive global grants. It is one of the enlisted organizations with United Nations Office on Drugs & Crime (UNDOC).

Internationally, TCI Foundation in association with Bill & Melinda Gates Foundation was instrumental and successful in developing HIV Control program "KAVACH" worth 13 Million US$ funded project targeted for truckers in India. The Foundation also served Ethiopia and South Africa as technical support agency in the implementation of HIV control program amongst truckers.

The Foundation on behalf of other corporates/companies in India serves as CSR implementing agency within the ambit of Section 135 and Schedule VII of the Companies Act 2013. TCI Foundation is proudly associated with Government of India, State Governments, International Organizations, Public Sector Undertakings and Corporates of repute to deliver the quality controlled CSR activities in India.

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INTRODUCTION

Human immunodeficiency virus (HIV) and acquired immune deficiency syndrome (AIDS) are major global public health issues, with millions becoming infected each year. HIV makes the body's ability to fight infections challenging (1,2). There is currently no cure for AIDS. After developing one of the CDC-defined AIDS indicator diseases, an HIV-infected individual is diagnosed with AIDS. A positive HIV test result does not necessarily indicate that a person has AIDS. A clinician uses clinical criteria (such as AIDS indicator diseases) to make an AIDS diagnosis (3) .The 90-90-90 targets were missed, although only slightly. As per the latest epidemiological data, India is estimated to have around 24.0 lakh (19.92- 29.07 lakh) people living with HIV/ADIS (PLHIV) with overall adult prevalence of 0.21% (0.17-0.25%) in 2021. HIV prevalence among males was at 0.22% while among female was at 0.19%. Around 63 thousand new HIV infections were estimated in 2021. Almost 92% of total new infections were reported to be among population aged 15 years or above including around 24.44 thousand among women. Around 42 thousand PLHIV died of AIDS related mortality on the same reference period (4).

While the overall adult prevalence remains low (0.21%), HIV prevalence among high risks groups and the bridge population remains very high. HIV prevalence among migrants is 4 times , among truckers is 5 times, female sex works is 9 times ,among men who have sex with men (MSM) is 16 times , among transgender people is 18 times and among injecting drug users is 43 times of the overall adult prevalence (4)

The WHO The African Region continues to be the most badly affected, with approximately one in every 25 adults (3.4%) living with HIV, accounting for more than two-thirds of all HIV patients globally (5).India's transportation industry plays a crucial role in facilitating the movement of goods and people across the country. Truckers and migrants, who form an integral part of this industry, often face social and occupational vulnerabilities that increase their risk of HIV infection. Limited access to healthcare, mobility, and exposure to high-risk behaviours are some of the challenges faced by this population, which necessitates a comprehensive understanding of their knowledge, attitudes, and practices regarding HIV/AIDS.

Long-distance truck drivers, are frequently away from home for extended periods of time, operate in hazardous settings, and may participate in risky behaviour that can lead to infection. Their mobility makes it difficult to obtain health information and treatment, as well as to stick to a medicine regimen. Furthermore, as new roads connect low and high prevalence areas, the sector acts as a vector for HIV transmission (6)

India has a large trucking population estimated at 5–6 million truckers and helpers, and approximately 3.5 million are classified as long-distance truckers. The sexual behaviour of trucking populations has been associated with the transmission of sexually transmitted infections (STI) and HIV in India and elsewhere in Asia, Africa, south America and the United States ·HIV prevention interventions have often focused on truckers because of their high-risk behaviour, mobility and ability to spread infections to new geographical areas (7) .

Female sex workers constitute another vulnerable group, as they face a multitude of social and economic challenges. Engaged in a profession associated with a high risk of HIV transmission, female sex workers often encounter barriers to accessing HIV

prevention and treatment services. Examining their knowledge, attitudes, and practices concerning HIV/AIDS is crucial for developing effective interventions and policies that address their specific needs and reduce the spread of the virus within this population.

Migrant population especially labours – when the travelled from one place to another in search of work- they are potential carriers of spreading infectionThe **National AIDS Control Programme (NACP)**, launched in 1992, is being implemented as a comprehensive programme for prevention and control of HIV/AIDS in India (8).Despite the efforts made by SACS in controlling the spread of HIV, the number of new infections is increasing; this causes an increased concern regarding the level of awareness, beliefs, an practices in HIV/AIDS in the general population

This study will focus on five states in India, chosen based on their diverse demographic, cultural, and regional characteristics. By examining the knowledge, attitudes, and practices of the bridge population and female sex workers in these states, we can gain insights into the unique challenges and opportunities for HIV prevention and control within these regions. The findings of this study will contribute to evidence-based interventions, policy recommendations, and targeted awareness campaigns that aim to address the HIV/AIDS epidemic in India more effectively.

By bridging the knowledge gap regarding HIV/AIDS among truckers, migrants, and female sex workers, this study will provide valuable insights into the specific needs and vulnerabilities of these populations. The findings will help inform the development of tailored interventions, education programs, and awareness campaigns aimed at promoting safer behaviours, increasing access to healthcare services, and reducing the transmission of HIV/AIDS within these high-risk populations. Ultimately, this research

will contribute to the overall goal of achieving a healthier and more resilient society by combatting the spread of HIV/AIDS in India.

PURPOSE OF THIS STUDY

Knowledge, attitudes and practices (KAPs) regarding HIV/AIDS is one of the corner stones in the fight against the disease. Bridge population and high-risk group population are most vulnerable to infection because they engage in risky practices due to a lack of adequate information. Thus, evaluating their KAPs will help in designing appropriate prevention strategies.

OBJECTIVES

1.1 To assess the level of knowledge of bridge population and high-risk group population regarding HIV/AIDS transmission, prevention, and treatment.

1.2 To determine the attitudes of bridge population and high-risk group population towards HIV/AIDS.

1.3 To identify the risky behaviours and practices of bridge population and high-risk group population that may contribute to the spread of HIV/AIDS.

METHODOLOGY

Study design- cross sectional study

Sampling method – Convenient sampling was used to collect data after calculating sample size from March 1 -30 April 2023.According to HSS (HIV sentinel surveillance)

Targeted population (Study population)

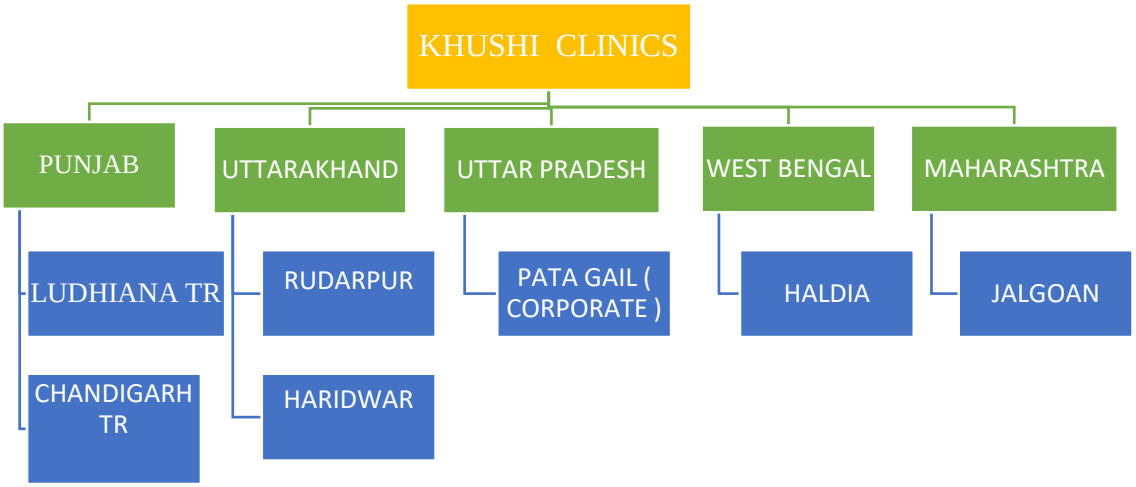
- Truckers (long distance: more than 800 km)
- Migrant workers (living away from for more than 6 months: industrial and daily wagers)
- Female sex workers

Study settings

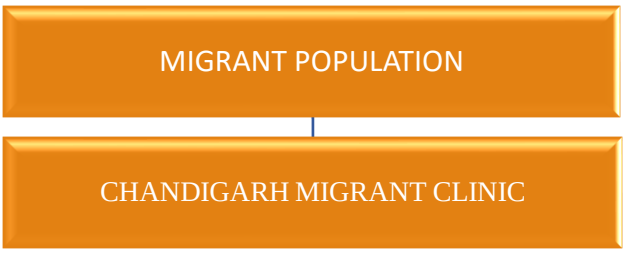
The present study was aimed to evaluate truck driver's, female sexual workers, and migrant population knowledge, attitudes, and practices about HIV/ AIDS in Khushi clinics of Ludhiana, Chandigarh, Haldia, Mainpuri, Rae – Bareli, Haridwar, Rudarpur, Jalgaon. This study should help to better target campaigns against HIV by enabling these population to refine, considering their concerns.

Sampling frame framework(based on operational and logistic feasibility)

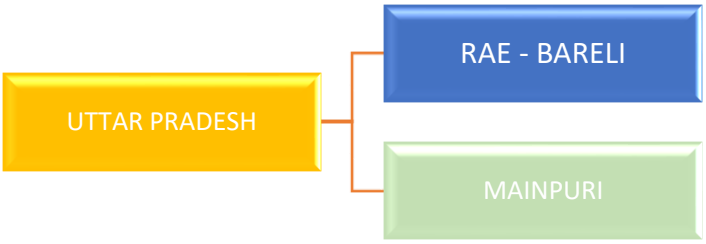
Truckers population (Truck driver and helpers)



Migrants



Female sex workers (Fsw)



Geographical areas

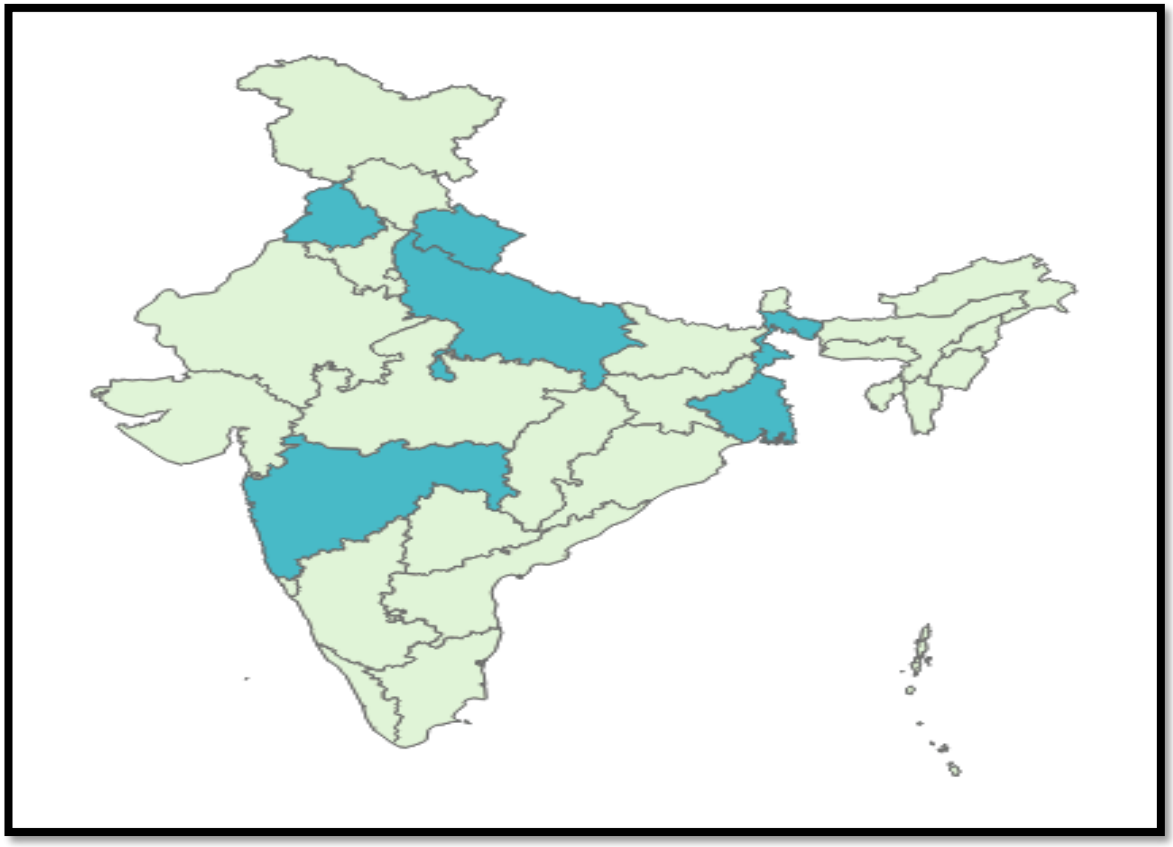


Figure 1: Geographical areas under study

Sample size

Truckers population

Using following study as baseline- https://pubmed.ncbi.nlm.nih.gov/19098482/

consistent condom use

Using formula –Z*Z*P*Q/D*D

Z= 95 % confidence interval (1.96)

P= 70%

Q= P-Q

D= 10 %

= 1.96*1.96*.7*.3/0.1*0.1=.806/0.01=80.6

sample size=Taking 20% attrition rate = 80.6+16.12= 96.72

Migrants

Using following study as baseline :https://pubmed.ncbi.nlm.nih.gov/25861172/

Using formula = Z*Z*P*Q/D*D

Z= 95% confidence interval

p=46%

q= p-q

d=10%

1.96*1.96*.46*.54/0.1*.1=.95425/0.01=95.42

Taking 20% as attrition rate = 95.42+19.08=114.54

Female sex workers

Using following study as baseline :https://pubmed.ncbi.nlm.nih.gov/32509679/

Using formula = Z*Z*P*Q/D*D

Z= 95% confidence interval

P=97.8

Q=P-Q= 0.02

D= 5%

= 1.96*1.96*.97*.03/.05*.05=.1117

= .1117/.0025=44.68

Taking 20% as attrition rate 44.68+8.936=53.61

Ethical approval

This study was a component of a dissertation and ethical clearance was taken form

IIHMR

Data collection and analysis

Data for this study was gathered through google forms. Informed consent was signed from these participants and full confidentiality of the participants was maintained through coding of data for example (001,002). Informed consent of the patients was obtained on hard copies duly signed by participants .Data was collected by myself as well by outreach workers due to shortage of time .The truck drivers, female sex workers and migrants were briefed about the purpose of the study, importance of their participation, its consequential benefit and assured confidentiality.

Data was received in Excel version 2021 and then exported to the Statistical Package for Social Scientist (SPSS) version 18 for cleaning and analysing. The data analysis included : a descriptive statistic that was used to establish the frequency, range, mean, and standard deviation of demographic factors and clinical characteristics. Frequency, range, mean, and standard deviation was used for continuous variables. Percentage and frequency were used for categorical variables. Pearson's Correlation Coefficient and multiple regression analysis was used to explain relationship of independent variables to the outcome variable.

RESULTS

SOCIO-DEMOGRAPHIC CHARACTERISTICS

VARIABLES	FEMALE SEX WORKERS	TRUCKERS	MIGRANTS
	(N= 98%	N= 146(%)	N=122(%)
Gender			
Female	98(98%)	-	-
Male	-	146	122
Age of the participant			
15-19	1(1)	2(1.013)	1(0.81)
20-24	15(15.3)	11(7.53)	12(9.83)
25-29	47(47)	33(22.60)	27(22.13)
30-34	16 (16)	36(24.65)	28(22.95)
35-39	13 (13.3)	27(18.49)	31(25.40)
40-44	5 (5.1)	23(15.75)	15(0.10)
45-49	1(1)	12(8.21)	8(6.55)
50-54	0	2(1.013)	0
Residence (permanent Place)			
Rural	11.2(11.2)	56(38.35)	65(53.27)
Urban	80(81.7)	6(4.10)	43(35.24)
Semi- urban	7(7.1)	84(57.53)	14(11.47)
Level of education			
No education	23(23)	20(13.69)	26(21.31)
Primary	46(47)	90(61.64)	53(43.44)
Secondary or more	29(30)	36(24.65)	43(35.24)
House hold income			
Below 10,000	35(35.7)	88(60.27)	67(54.91)
10,000-50,000	55(56.1)	57(39.04)	55(45.08)
50,000-1 lakh	8(8.1)	1(0.68)	0
Religion			
Sikh	0	9(6.16)	9(7.377)
Muslim	27(27.5)	14(9.58)	14(11.47)
Hindu	71(72.4)	122(83.56)	99(81.14)
Christianity		1(0.06)	0

Table 1 Socio-demographic characteristics

ANALYSIS OF THE ABOVE TABLE 1

The age group with the highest representation among female sex workers was 25-29 years (47%), followed by 20-24 years (15.3%). Among truckers, the highest representation was in the 30-34 age group (24.65%), and among migrants, it was also in the 30-34 age group (22.95%). This suggests that there are differences in the age distribution among the three groups. The majority of female sex workers (81.7%) lived in urban areas, while a significant proportion of truckers (38.35%) and migrants (53.27%) lived in rural areas. Truckers had the highest percentage (57.53%) residing in semi-urban areas. The majority of female sex workers (56.1%) had a household income below 10,000, while truckers had a more evenly distributed income range, with 39.04% falling in the 10,000-50,000 category. Migrants had the highest percentage (54.91%) with a household income below 10,000. This suggests disparities in income levels between the groups. Female sex workers had the highest proportion of individuals with no education (23%), followed by those with primary education (47%). Truckers had the highest percentage of individuals with primary education (61.64%), while migrants had a more balanced distribution across education levels. These variations indicate differences in educational backgrounds among the three groups. Mobile phones were the primary source of media exposure for female sex workers (13.26%), while truckers (80.13%) and migrants (66.39%) relied heavily on mobile phones as well. Truckers had higher exposure to newspapers (62.32%), and migrants had relatively higher exposure to television (55.73%). These findings indicate varying media preferences and access among the three groups.

KNOWLEDGE ABOUT TRANSMISSION AND PREVENTION

KNOWLEDGE ABOUT TRANSMISSION AND PREVENTION						
Variables	Female sex workers	Truckers	Migrants	Fsw And Migrants	Fsw and truckers	Migrant and truckers
	N=98(%)	N=146(%)	N=122(%)			
Knowledge about transmission through sexual mode						
YES	75(76.5)	56(38.4)	95(77.9)	N.S	.000	.001
NO	20(20.4)	73(50)	22(18)			
DON'T KNOW	3(3.1)	17(11.6)	5(4.1)			
Knowledge about transmission through needle sharing						
YES	56(57.1)	98(67.1)	85(69.7)	. 054	.N.S	.000
NO	31(31.6)	42(28.8)	32)26.2)			
DON'T KNOW	11(11.2)	6(4.1)	5(4.1)			
Knowledge about transmission through blood transfusion						
YES	78(79.6)	64(43.8)	97(79.5)	N.S	.001	.000
NO	13(13.3)	62(42.5)	19(15.6)			
DON'T KNOW	7(7.1)	20(13.7)	6(4.9)			
Knowledge about prevention by having one faithful partner						
YES	89(90.8)	88(60.3)	91(74.6)	.002	.000	.013
NO	7(7.1)	38(26)	15(12.3)			
DON'T KNOW	2(2)	20(13.7)	16(13.1)			
Knowledge about prevention through consistent condom use						
YES	78(79.6)	64(43.8)	97(79.5)	N.S	.000	.001
NO	13(13.3)	62(42.5)	19(15.6)			
DON'T KNOW	7(7.1)	20(13.7)	6(4.9)			

Table 2 :Knowledge about transmission and prevention

ANALYSIS OF THE TABLE 2

Knowledge about transmission through sexual mode:

FSWs showed the highest level of knowledge (76.5%), followed by Migrants (77.9%) and Truckers (38.4%).There was a significant difference between FSWs and Truckers ($p = 0.000$), indicating that FSWs had significantly higher knowledge about sexual transmission compared to Truckers. However, no significant difference was observed between FSWs and Migrants, suggesting similar knowledge levels in this aspect.

Knowledge about transmission through needle sharing:

Truckers had the highest level of knowledge (67.1%), followed by Migrants (69.7%) and FSWs (57.1%).There was no significant difference in knowledge between FSWs and Truckers or between FSWs and Migrants. However, there was a significant difference between Migrants and Truckers ($p = 0.000$), indicating that Truckers had significantly higher knowledge about transmission through needle sharing compared to Migrants.

Knowledge about transmission through blood transfusion:

FSWs exhibited the highest level of knowledge (79.6%), followed by Migrants (79.5%) and Truckers (43.8%).There were significant differences in knowledge between FSWs and Migrants ($p = 0.001$) as well as between FSWs and Truckers ($p = 0.001$).No significant difference was observed between Migrants and Truckers in this aspect

Knowledge about prevention by having one faithful partner:

FSWs demonstrated the highest level of knowledge (90.8%), followed by Migrants (74.6%) and Truckers (60.3%).There were significant differences in knowledge between FSWs and Migrants ($p = 0.002$), FSWs and Truckers ($p = 0.000$), as well as Migrants and Truckers ($p = 0.013$).These findings suggest that FSWs generally possessed a greater understanding of preventing HIV transmission through having one faithful partner compared to Truckers and Migrants.

Knowledge about prevention through consistent condom use:

FSWs and Migrants showed similar levels of knowledge (79.6% and 79.5% respectively), while Truckers had a lower level of knowledge (43.8%).There were significant differences in knowledge between FSWs and Truckers ($p = 0.000$) as well as between Migrants and Truckers ($p = 0.001$).However, no significant difference was observed between FSWs and Migrants regarding knowledge about prevention through consistent condom use.

MISCONCEPTIONS ABOUT HIV TRANSMISSION

Variables	Female sex workers	Truckers	Migrants
Misconception about HIV transmission	N=98(%)	N=146(%)	N=122(%)
Through sharing the same meal			
YES	16(16.32)	49(33.56)	35(28.68)
NO	50(51.02)	69(47.26)	63(51.63)
DON'T KNOW	32(32.65)	28(19.17)	24(19.67)
Mosquito bite			
YES	8(8.16)	50(34.24)	17(13.93)
NO	60(61.22)	73(50)	71(58.19)
DON'T KNOW	30(30.61)	23(15.75)	34(27.86)
By sharing the same tool (utensils) of infected person			
YES	32(32.65)	41(28.08)	23(18.85)
NO	54(55.10)	71(48.63)	75(61.47)
DON'T KNOW	12(12.24)	34(23.28)	24(19.67)
By Living in the same room with infected person			
YES	32(32.65)	57(39.04)	23(18.85)
NO	57(58.16)	60(41.09)	75(61.47)
DON'T KNOW	9(9.18)	29(19.86)	24(19.67)

Table 3 :Misconceptions about HIV transmission

TABLE 3 (CONTINUED)

Misconception about HIV transmission	Female sex workers N=98(%)	Truckers N=146(%)	Migrants N=122(%)
By sharing the same clothes with infected person			
YES	18(18.36)	34(23.28)	30(24.59)
NO	65(66.32)	85(58.21)	66(54.09)
DON'T KNOW	15(15.30)	27(18.49)	26(21.31)
By shaking hands with infected person			
YES	22(22.44)	42(28.76)	29(23.77)
NO	69(70.40)	77(52.73)	76(62.29)
DON'T KNOW	7(7.14)	27(18.49)	17(13.93)
By using the same toilet facilities with infected person			
YES	22(22.44)	45(30.82)	29(23.77)
NO	66(67.340	78(53.42)	76(62.29)
DON'T KNOW	10(10.20)	23(15.75)	17(13.93)
Is there any cure for HIV			
YES	27(27)	60(41.09)	28(22.95)
NO	45(45.91)	64(43.83)	75(61.47)
DON'T KNOW	26(26.53)	22(15.06)	19(15.57)
Is it possible for someone to have HIV and not know about it			
YES	66(67.34)	87(59.58)	84(68.85)
NO	32(32.65)	59(40.41)	38(31.14)

ANALYSIS OF THE TABLE 3

Among female sex workers, 16.32% believed that HIV can be transmitted by sharing the same meal, while this misconception was higher among truckers (33.56%) and migrants (28.68%). There is a significant proportion of individuals in each group who hold this misconception. The belief that HIV can be transmitted through a mosquito bite was present among 8.16% of female sex workers, 34.24% of truckers, and 13.93% of migrants. Again, truckers had the highest percentage believing in this misconception. Among female sex workers, 32.65% believed that sharing the same tools with an infected person can transmit HIV. This belief was also present among 41% of truckers and 18.85% of migrants. 32.65% of female sex workers, 39.04% of truckers, and an unknown percentage of migrants believed that living in the same room with an infected person can transmit HIV. Truckers had the highest percentage in this category. The misconception of HIV transmission through sharing clothes was present among 18.36% of female sex workers, 23.28% of truckers, and 24.59% of migrants.22.44% of female sex workers, 28.76% of truckers, and 23.77% of migrants believed that HIV can be transmitted through shaking hands with an infected person. Among female sex workers, 22.44% held the misconception that using the same toilet facilities as an infected person can transmit HIV. This belief was present among 30.82% of truckers and 23.77% of migrants. Only 27% of female sex workers believed that there is a cure for HIV, while a higher percentage of truckers (41.09%) and migrants (22.95%) believed in the existence of a cure. Is it possible for someone to .The belief that someone can have HIV without knowing about it was prevalent among a significant majority of female sex workers (67.34%), truckers (59.58%), and migrants (68.85%).It's important to note that these

percentages represent the proportion of individuals within each group who hold these misconceptions.

ATTITUDE OF THE POPULATION

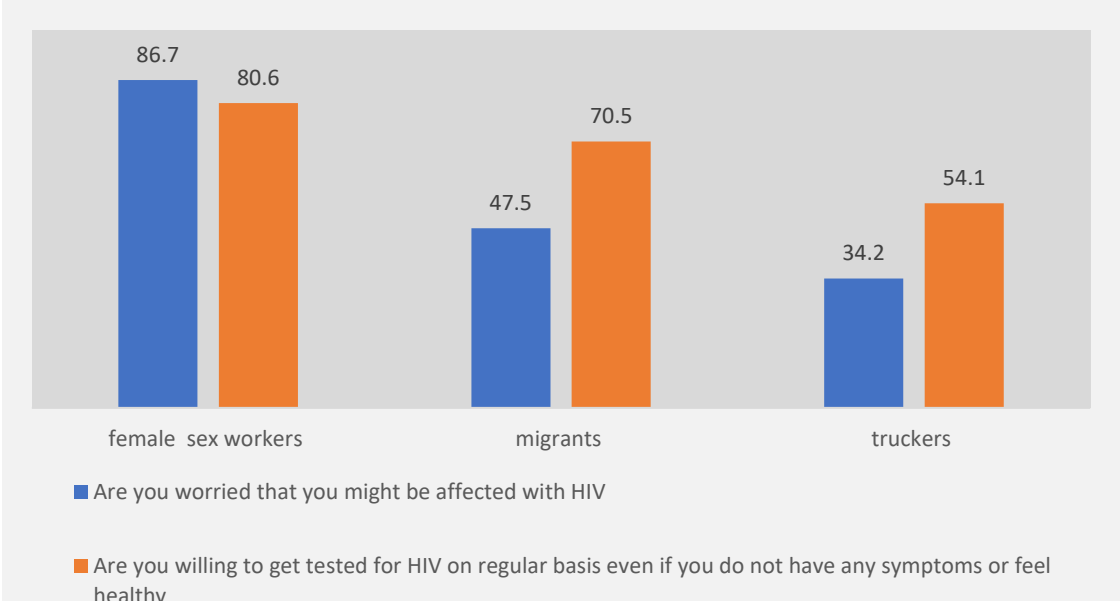


Figure 2: Attitude of the study participants

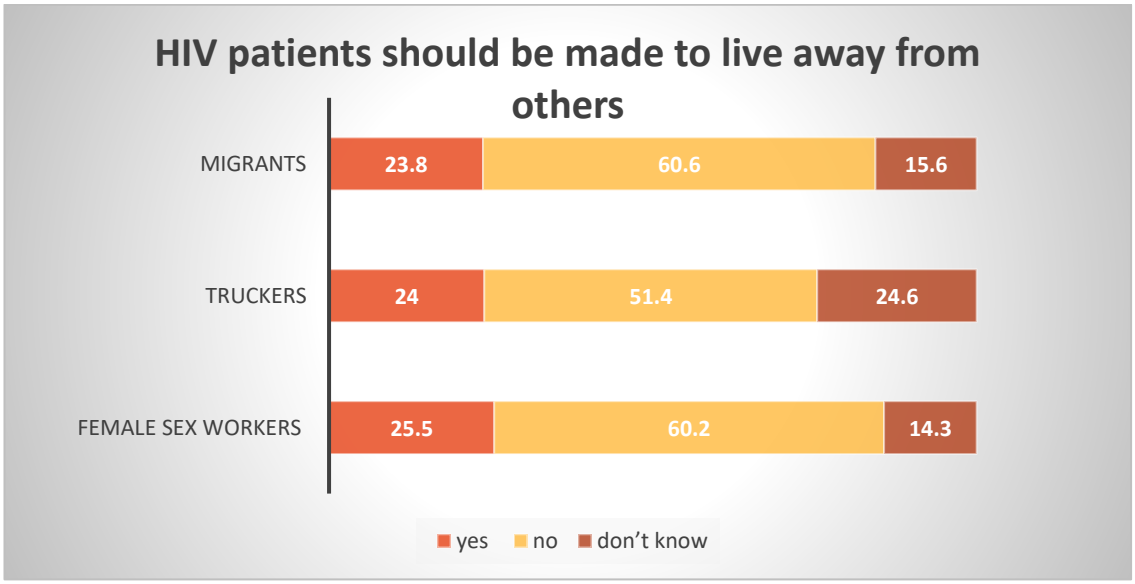


Figure 3 : HIV patients should be made to live away from others

PRACTICES OF THE FEMALE SEX WORKERS

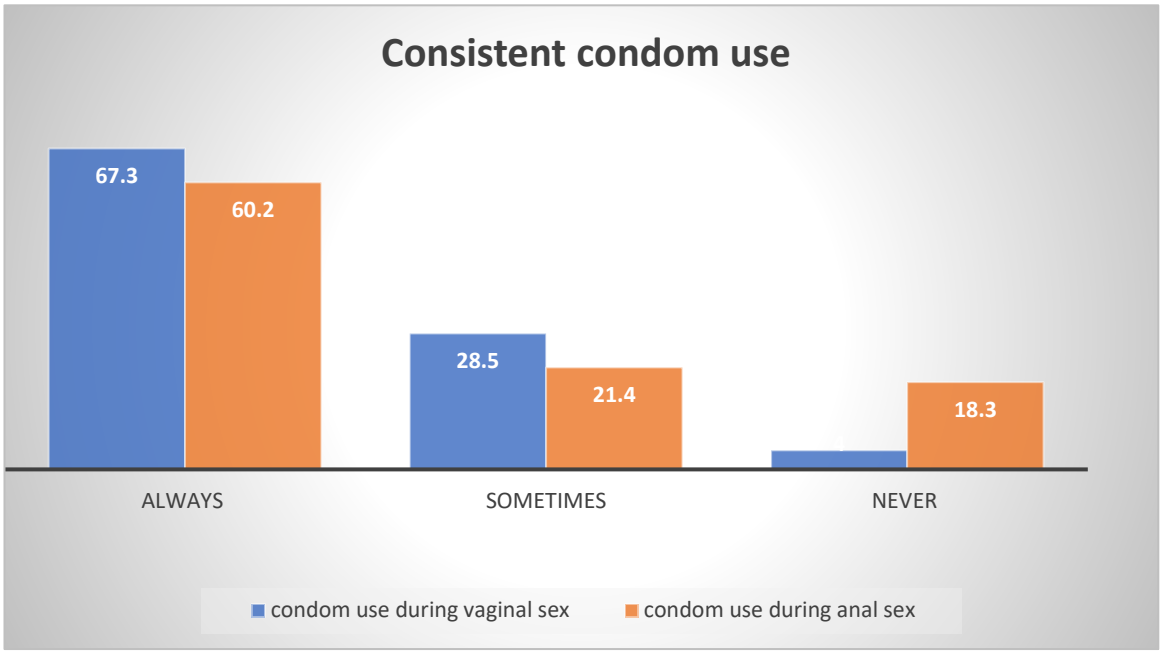


Figure 4 :Consistent condom use

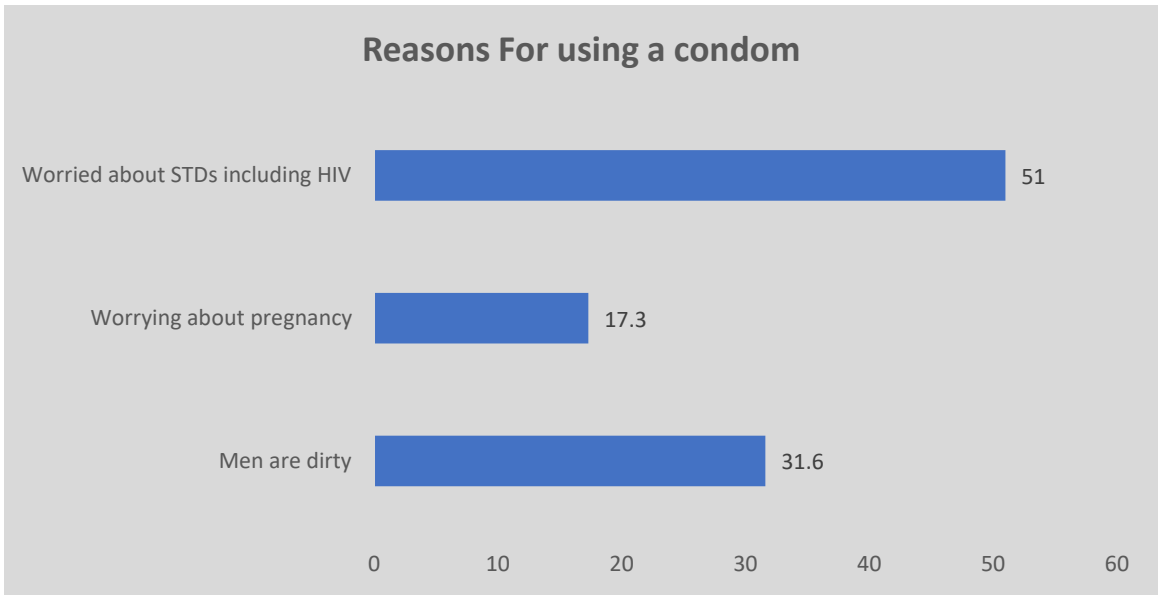


Figure 5 :Reasons for using a condom

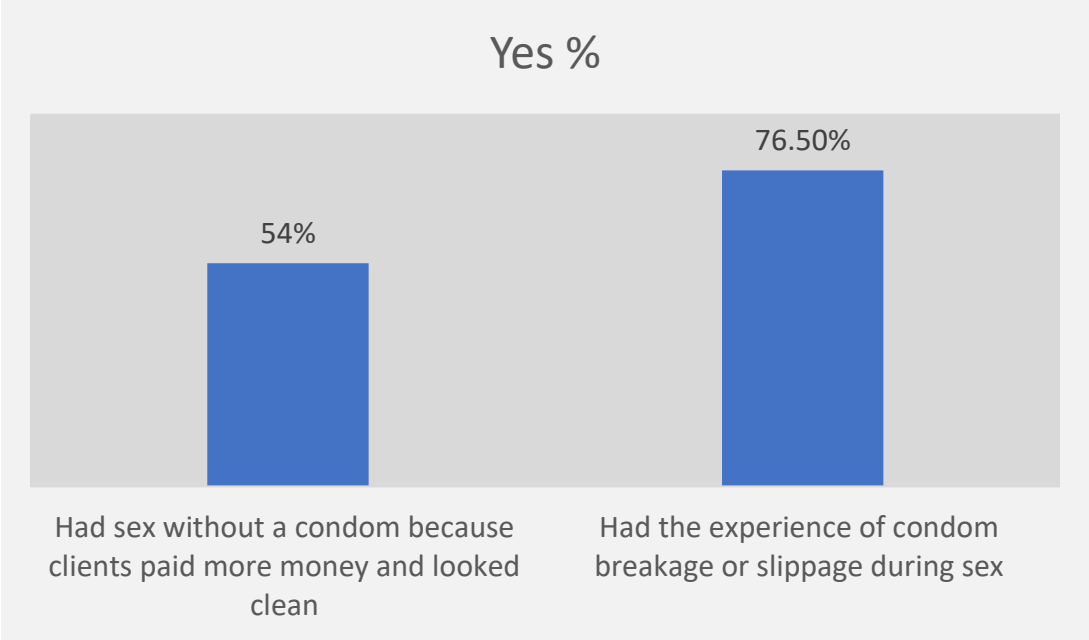


Figure :6 % of FSW who had sex without condom and had experience of slippage of condom during sex

PRACTICES (TRUCKERS AND MIGRANTS)

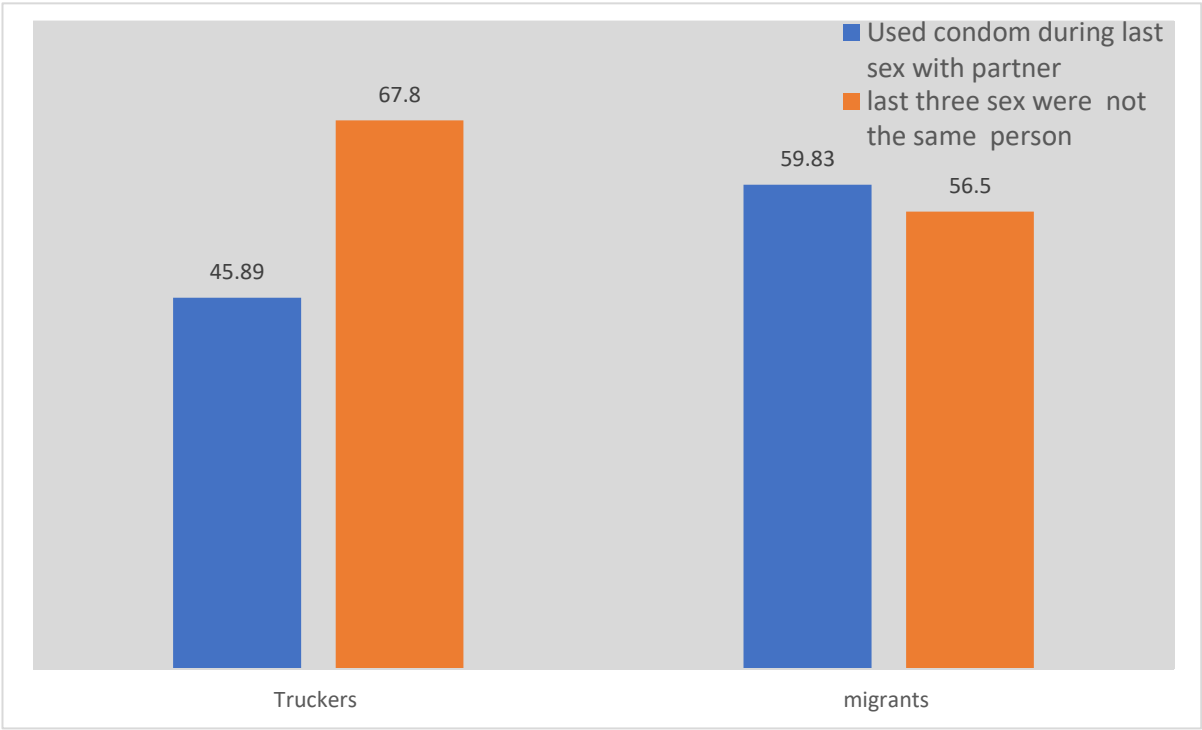


Figure 7 :Practices of condom use with multiple partners

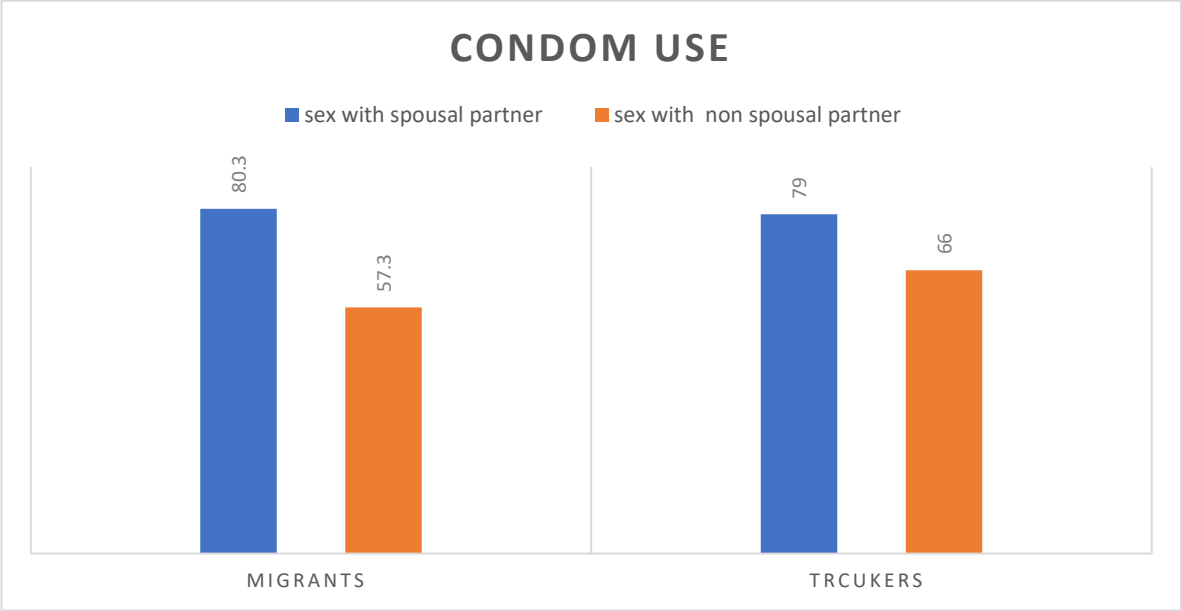


Figure 8: Condom use with spousal and non-spousal partner

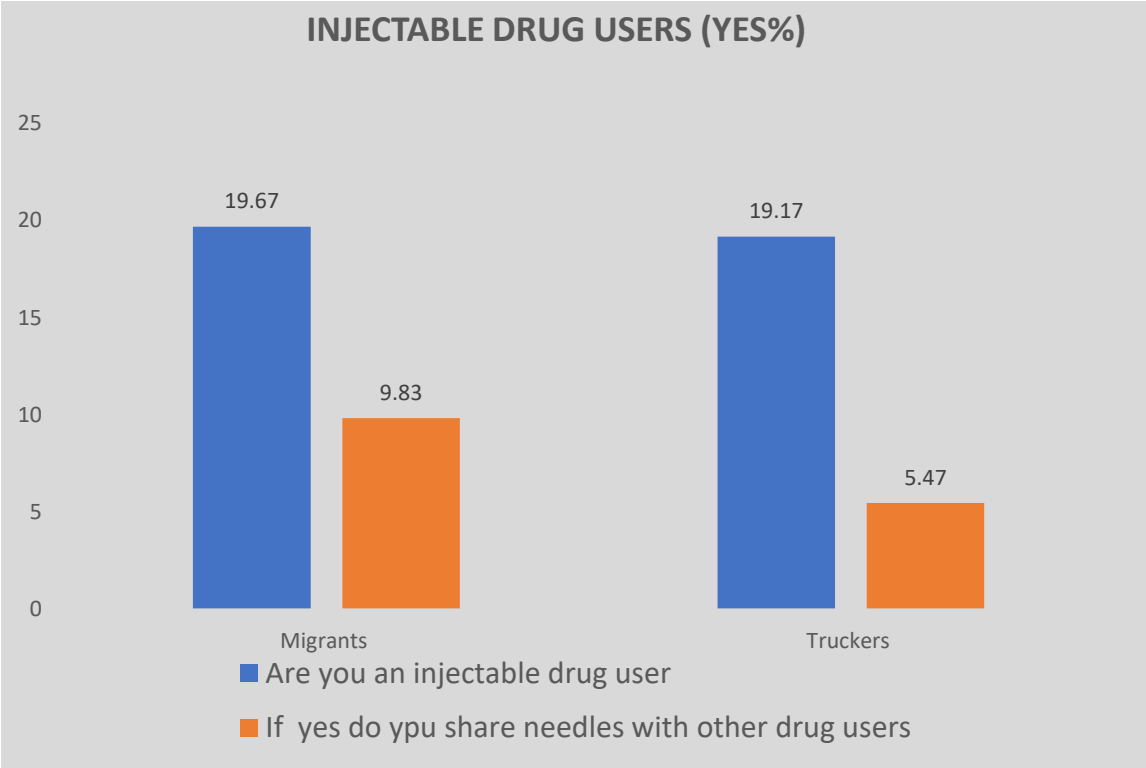


Figure 9 :Percentage of injectable drug users

CONCERNS OR FEARS ABOUT ACCESSING HIV TESTING OR TREATMENT SERVICES DUE TO STIGMA OR DISCRIMINATION RELATED TO YOUR SEX WORK

"We get exposed in front of everyone , people come to know that we have come for HIV testing since there is lot of phobia regarding HIV and it's a deadly disease , it's become difficult for us to avail services from hospitals and clinics although we know that it's a disease similar to other"

"Staff in the hospitals do not treat us good when we go to avail services because they think it's our mistake that we are involved in sex work"

"I will not get in any work if people come to know that I am HIV positive so because of that fear I do not go for HIV testing"

"Our identity gets disclosed which will be a big problem for my family If anyone see me going for HIV testing"

INFERENCES

Most of the female sex workers are afraid that their identity will get disclosed if they go for HIV testing. Even the medical staff have indefinite behaviours towards which is a barrier for them to receive care and avail services

HAVE YOU EVER EXPERIENCED VIOLENCE OR ABUSE FROM CLIENTS RELATED TO HIV OR CONDOM USE, AND HOW DO YOU HANDLE THE SITUATION (OPEN ENDED)?

"When we go to the client , people accompanying them forcefully try to die sex with ous without using condoms , if we inform our broker she might find a solution but most of the times it really becomes difficult for us to control the situation"

"Clients generally do not agree for condom use and offer us to pay more money in case we resist"

"Generally, clients are drunk and abuse us and do not wear condom despite telling them"

"Our broker provides us the condoms but clients do not wear them because they say we do not get pleasure"

INFERENCES

Female sex workers have knowledge about the importance of wearing condoms, but since clients do not agree they involve in risky behaviour which is area of concern since female sex workers are bridge population

DISCUSSION

The present study which was conducted in 5 states across India on three different population indicated that study participants have good knowledge about HIV/AIDS , its transmission and modes of prevention as also noted in study conducted by **sawal et al** (9) however there were lot of misconception related to HIV among these groups similar to the study conducted by **Chaturvedi et al. on 315 truck drivers** (10).

According to the findings of a survey conducted among truck drivers in Tamil Nadu, India, 71% understood it could not be spread by mosquito/insect bites, 76.8% knew it could not be passed by sharing clothes and eating from the same utensil. **According to Singh R. and Joshi HS. (2012)** (10) , 81.8% of respondents were aware that HIV can be transmitted through the sexual method if a condom is not worn, 66.9% through sharing needles among drug users, 93.2% through contaminated blood transfusion, 49.3% were aware that it can be avoided by remaining faithful to one's usual relationship while the percentage of these variables is quite low in the present study .

Despite good knowledge about prevention of HIV through consistent condom use (79.6%) , 54% FSW had sex without condom because clients paid more money and looked clean and 76.5 % even had experience of condom slippage during sex **. A study conducted by Sadati e.al (11)** revealed similar findings that unprotected sex is more expensive than safe sex. This means that clients preferred unprotected sex for more pleasure even if they had to pay more money. Since money is a motivational factor, FSWs are willing to have unprotected sex.

Our findings are similar to a study conducted in Nepal which found FSWs were reluctant to use condoms with physically healthy good looking and intimate clients (12).

More than three – fourths (86.7%) of the study subjects were worried that about being infected with HIV and 25.5 % of the FSW , think people suffering from HIV should be made to live away from others while study conducted by **Sinha et al reported (13) 82.2% and 6.8% figures respectively .**

In our present study only 57.3% migrants use condom while sex with non-spousal partner .Saggurti et al.,(14) reported 11 to 20%, Halli et al.,(15)reported 8 to 68%, Li et al.,(16)reported 36% for the same. This shows that this study population had higher risk behaviour as compared to other studies. Men who engage in unprotected non-spousal sex are at a high risk for HIV acquisition and thereby require priority attention from policy makers and IEC planners.

FSW have shown concern and fears regarding discrimination in availing health services due to their sew work in our present study .They are apprehensive that their identity will get disclosed if they go to hospital to avail treatment and our findings are similar to the study conducted by **Liu et al.(17)**. It is possible that they are other variables , that we did not measure which are confounding the association shown in this study . It could be that during HIV testing and counselling that have disclosed that they are sex workers and have been treated poorly, thus increasing their levels of perceived sex work related stigma . Further studies are needed to more fully explain the relationship between perceived stigma and utilization of services. Obviously FSWs are unlikely to cooperate with programme planning in an atmosphere of stigmatization and victimization so the stigma of sex workers needs to be addressed in our community (18)

CONCLUSION

It is conceivable to deduce a sequence of interconnected events that explain the susceptibility of migrants, truckers from the study's various findings. This study population frequently migrate alone, abandoning their families behind. Boredom, a lack of entertainment facilities, peer pressure, a lack of social support, the cover of anonymity, expendable cash, the biological drive for sex, and the availability of networks of commercial sex workers all work together at the destination to enable these men to seek non-spousal, casual, or multiple partner sex.

STRENGHTS

This study was done in 5 states across India with robust sample size

LIMITATIONS

This study was a component of dissertation and had time limitations .This study has its limitations due to convenient sampling and possibility of interviewer bias. The questionnaires were in English initially and translated into Hindi. This translation may have had shortcomings and that is the other constraint in this study. The language barrier restricts the type of questions that could have been asked

RECOMMENDATIONS

Because of their lack of comprehensive HIV/AIDS education and reluctance to condom use, they are more likely to engage in hazardous sexual behaviour, such as unprotected sexual intercourse, increasing their vulnerability to HIV infection. To address this issue, several measures can be implemented, including the implementation of peer educator programmes in factories, collaboration with local Integrated Counselling and Testing Centres (ICTCs) for voluntary counselling and testing, regular refreshment courses at

the workplace, and the formation of alliances with industry associations to provide overall support to HIV/AIDS-related activities within vulnerable positions .

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ANNEXURES

TRUCKERS AND MIGRANTS(QUESTIONNAIRE)

SECTION 1

Individual-level factors

1)Gender

- Male
- Female

2) Age of the participant

15-19

20-24

25-29

30-34

25-39

40-44

45-49

50-54

3) Residence (permanent Place)

- Rural
- Urban

4) Level of education

- No education
- Primary
- Secondary or more

5)House hold income

- Below 10,000
- 10,000-50,000
- 50,000-1 lakh

6) Religion

- Sikh
- Muslim
- Hindu
- Christianity

7) Source of media exposure

- Newspaper
- Televise
- Mobile phones

8) Duration of stay away from home

- 1-2 weeks
- 2-4 weeks
- more than 1 month
- more than 6 months

SECTION 2

Knowledge

Q1 Heard about AIDS and exposure to intervention programmes

- Heard about AIDS/STD
- Exposed to intervention programme

Q2 Knowledge about HV transmission and prevention mode

Knowledge about transmission through sexual mode

YES 2) NO 3) DON'T KNOW

Knowledge about transmission through needle sharing

1 YES 2) NO 3) DON'T KNOW

Knowledge about transmission through blood transfusion

1)YES 2) NO 3) DON'T KNOW

Knowledge about prevention by having one faithful partner

1)YES 2) NO 3) DON'T KNOW

Knowledge about prevention through consistent condom use

1)YES 2) NO 3) DON'T KNOW

Q3 Misconception about HIV transmission

Sharing the same meal

1)YES 2) NO 3) DON'T KNOW

Mosquito bite

1)YES 2) NO 3) DON'T KNOW

Sharing the same tool of infected person

1)YES 2) NO 3) DON'T KNOW

Living in the same room with infected person

1 YES 2) NO 3) DON'T KNOW

Sharing the same clothes with infected person

1 YES 2) NO 3) DON'T KNOW

Shaking hands with infected person

1 YES 2) NO 3) DON'T KNOW

Using the same toilet facilities with infected person

1 YES 2) NO 3) DON'T KNOW

Q 4 Is there a cure for HIV/AIDS?

1 YES 2) NO 3) DON'T KNOW

Q5 what are the signs and symptoms of HV/AIDS (open ended)

Q6 Is it possible for someone to have HIV and not know about it

1)YES 2) NO 3)DON'T KNOW

Q7 How often should someone gest tested if they engaged in high risk population (open ended)

SECTION 3

ATTITUDES

1.If a shopkeeper or food seller is HIV positive, would you buy items from him/her?

YES/NO/DON'KNOW

2.Worrying about infected with HIV

YES/NO/

3 PLHIV are of loose character

YES/NO/ DON'T KNOW

4 HIV patients should be made to live away from others

YES/NO/ DON'T KNOW

5.PLHIV should be deprived of their property

YES/NO/ DON'T KNOW

6.If one of your relatives, who is HIV positive, becomes ill, would you be willing to care for her/him in your house or community?

YES/NO/ DON'T KNOW

7.Are you willing to get tested for HIV on regular basis even if you do not have any symptoms or feel healthy

SECTION 4

PRACTICES

1. Ever used condom

YES/NO

2. Used condom during last sex with spousal partner

YES/NO

3. Non-spousal sex (ever)

YES/NO

4.Non-spousal sex in home town

YES/NO

5. Used condom during last sex with non-spousal partner

YES/NO

6. Last three sex partners were the same person

YES/NO

7. Used a condom during last 3 sexual intercourse

YES/NO

8. Done HIV test before

YES/NO

9. Know HIV status

YES/NO

10.Intoxicated during their last sexual encounter

YES/NO

11.Last sexual partner was at least 10 years older

YES/NO

12.1Are you an injectable drug user?

YES/NO

13.If yes do you share needles with other drug users

YES/NO

ANNEXURE

FEMALE SEX WORKERS(QUESTIONNAIRE)

SECTION 1

Individual-level factors

1)Gender

- Female
- Transgender

2) Age of the participant

15-19

20-24

25-29

30-34

25-39

40-44

45-49

50-54

3) Residence (permanent Place)

- Rural
- Urban

4) Level of education

- No education
- Primary
- Secondary or more

5)House hold income

- Below 10,000
- 10,000-50,000
- 50,000-1 lakh

6) Religion

- Sikh
- Muslim
- Hindu
- Christianity

7) Source of media exposure

- Newspaper
- Televise
- Mobile phones

SECTION 2

Knowledge

Q1 Heard about AIDS and exposure to intervention programmes

- Heard about AIDS/STD
- Exposed to intervention programme

Q2 Knowledge about HV transmission and prevention mode

Knowledge about transmission through sexual mode

YES 2) NO 3) DON'T KNOW

Knowledge about transmission through needle sharing

1 YES 2) NO 3) DON'T KNOW

Knowledge about transmission through consistent condom use

1)YES 2) NO 3) DON'T KNOW

Knowledge about prevention by having one faithful partner

1)YES 2) NO 3) DON'T KNOW

Knowledge about prevention through consistent condom use

1)YES 2) NO 3) DON'T KNOW

Q3 Misconception about HIV transmission

Sharing the same meal

1)YES 2) NO 3) DON'T KNOW

Mosquito bite

1)YES 2) NO 3) DON'T KNOW

Sharing the same tool (razor, utensils) of infected person

1)YES 2) NO 3) DON'T KNOW

Living in the same room with infected person

1 YES 2) NO 3) DON'T KNOW

Sharing the same clothes with infected person

1 YES 2) NO 3) DON'T KNOW

Shaking hands with infected person

1 YES 2) NO 3) DON'T KNOW

Using the same toilet facilities with infected person

1 YES 2) NO 3) DON'T KNOW

Q 4 Is there a cure for HIV/AIDS?

1 YES 2) NO 3) DON'T KNOW

Q5 what are the signs and symptoms of HV/AIDS (open ended)

Q6 Is it possible for someone to have HIV and not know about it

1)YES 2) NO 3) DON'T KNOW

Q7 How often should someone gest tested if they engaged in high risk population (open ended)

SECTION 3

ATTITUDES

1.If a shopkeeper or food seller is HIV positive, would you buy items from him/her?

YES/NO/DON'KNOW

2.Are you worried that you might be infected with HIV?

YES/NO/

3 Do you think that PLHIV (people living with HIV) are of loose character

YES/NO/ DON'T KNOW

4 HIV patients should be made to live away from others

YES/NO/ DON'T KNOW

5.PLHIV should be deprived of their property

YES/NO/ DON'T KNOW

6.If one of your relatives, who is HIV positive, becomes ill, would you be willing to care for her/him in your house or community?

YES/NO/ DON'T KNOW

7.Are you willing to get tested for HIV on regular basis even if you do not have any symptoms or feel healthy

8. Do you have any concerns or fears about accessing HIV testing or treatment services due to stigma or discrimination related to you sex work (open ended)

PRACTICES

Q1 **Condom use during vaginal sex**

- Always
- Sometimes
- Never

Q2 **Condom uses during anal sex**

- Always
- Sometimes
- Never

Q3 **Commercial client per day**

- =1

- 2
- =>3

Q4 **Condom use in most recent sexual intercourse with a client**

YES/NO

Q5 **In most recent three episodes of sexual intercourse, times condoms use**

- 0
- 1
- 2
- 3

Q6 Had the experience of condom breakage or slippage during sex

YES/NO

Q 7 **Had sex without a condom because clients paid more money and looked clean**

YES /NO

Q 8 **Had sex with non-client sexual partners**

- Boyfriend/husband
- Known friend
- Others

Q9 **Used a condom with non-client partner in most recent sexual intercourse**

YES/NO

Q10 **Reasons for using a condom?**

- Men are dirty
- Worrying about pregnancy
- Worried about STDs including HIV

Q11 **Usually, where did you obtain your condoms**?

- Family planning
- purchased at pharmacy
- owner provided

Q13 Do you have any concerns or fears about accessing HIV testing or treatment services due to stigma or discrimination related to your sex. (open ended)

Q 14 Have you ever experienced violence or abuse from clients related to HIV or condom use, and how do you handle the situation (open ended)

ANNEXURE 3

INFORMED CONSENT

STUDY OF KNOWLEDGE, ATTITIDE AND PRACTICES OF BRIDGE POPULATION (TRUCKERS AND MIGRANTS), HIGH RISK POPULATION (FEMALE SEX WORKERS) ON HIV/AIDS IN 5 STATES OF INDIA

Protocol/Study Number :

Participant identification Number :

Name of Principle Investigator Dr jaganjeet Kaur Randhawa

Contact No. of Principle Investigator : 9876884598

The content of the information sheet dated..... (Version)..... that was provided have been read carefully by me /explained to me, in a language that I comprehend, and I have fully understood the content. I conform that I have had the opportunity to ask questions regarding this study.

The nature and purpose of the study and risks related to the study and its potential risks/benefits and expected duration of the study, and other relevant details of the study have been explained to me in detail. I understood that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, without my legal right being affected.

I understand that the information collected about me from my participation in this study may be looked at by responsible authority and my identity will be kept confidential. I give permission for these individuals to have access to my records.

I agree to take part in the above study

..... Date.....

(Signature/left thumb impression) Place.....

Name of the participant.....

Address of participant.....

.....

.....

This is to certify that above consent has been obtained in my presence.

.....

Signature of the principle investigator/ team lead

1) Witness-I 2) witness-II

....

Signature

NAME

ADDRESS

IIHMR

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CERTIFICATE ON PLAGIARISM CHECK

Name of Student (in block letter)	Dr jaganjeet Kaur Randhawa		
Enrolment/Roll No.	PG/21/040	Batch Year	2021-2023
Course Specialication (Choose one)	Hospital Management	**Health Management**	Healthcare IT
Name of Guide/Supervisor	Dr/ Prof.: Rupsa Banerjee		
Title of the Dissertation/Summer Assignment	A cross sectional study on knowledge, attitude and practices of bridge population (truckers and migrants) and high-risk population (female sex workers on HIV/AIDS in 5 states of India		
Plagiarism detects software used	"TURNITIN"		
Similar contents acceptable (%)	Up to 15 % as per policy		
Total words and %A of similar contents identified	14%		
Date of validation (DD/MM/YYYY)	28/06/2023		

Guide/Supervisor

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