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Behavior surveillance survey amongst truck drivers regarding HIV/AIDS

Keshav Kumar Agrawal, Lata Agrawal, Vijender Kumar Agrawal, Varsha Chaudhary

Rohilkhand Medical College & Hospital, Pilibhit Bypass Road, Bareilly UP, Pin 243006

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Corresponding Author:

Vijender Kumar Agrawal,
Rohilkhand Medical College & Hospital,
Pilibhit Bypass Road, Bareilly UP, Pin 243006
vijenderagrwal@yahoo.co.in

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Abstract

Background: India has one of the largest road networks in the world and an estimated 5 million long distance lorry drivers. These men are away from their families for long durations, and in the unhealthy environment along the highways they become easy prey for commercial sex workers.

Methods: This study is based on information collected from a sample survey of long-distance truck drivers and their assistants by pre-coded questionnaire administered to each respondent in a face-to-face interview.

Result: In our study 73.3 % truckers were in 21-40 age group. 77 % truckers were married. 95.1 % truckers have heard name of HIV/AIDS. The truckers generally knew that HIV could be transmitted by infected needles /blood transfusion (90.8%) or from sexual route (88.0 %), or from mother to child during pregnancy (65.8 %). However 15.1 % of the men thought mosquito bites could transmit HIV and 5.3 % believed that one could get infected by sharing meals. Almost one-third (26.1%) reported intercourse with at least one 'commercial' partner (partner with whom sex was exchanged for money) in last 3 months. Though 75.0 % truckers knew that HIV can be prevented by use of condom, only 70.3 % (out of sexual promiscuous) used a condom while having sexual intercourse with a commercial partner.

Conclusion: The study highlights high-risk behavior of long distance truck drivers in spite of having knowledge regarding route of transmission and prevention of HIV. The HIV/AIDS prevention projects in truck drivers should focus on behavior change and enhancing condom use both with commercial and casual partners.

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INTRODUCTION

South/Southeast Asia is the second-most HIV affected region in the world, and India continues to have the highest numbers of HIV infected in Asia [1]. Evidence from the most recent National Family Health Survey [2], demonstrates that the state of Andhra Pradesh (AP) has the highest prevalence of HIV infection due to sexual transmission in India [3]. Overall estimates of HIV infection rates in India reflect an epidemic in high-risk populations and have created a shift in resources to focus on prevention efforts as evidenced by the recent National AIDS Control Program-3 (NACP-3) implementation plan for 2007–2012 which allocates 67.2% of the entire budget to HIV prevention efforts [4]. Early in the HIV pandemic, truck

drivers along the trans-African highways and in Asia were increasingly recognized as a high risk bridge population for HIV infection [5], [6], [7]. With 3 million trucks, often with both a driver and younger male helper or cleaner, on the roads in India [8]. The extended periods of time that they spend away from their families place them in close proximity to "high-risk" sexual networks, and often results in them having an increased number of sexual contacts. During their journeys the drivers often stop at 'dhabas', roadside hotels that usually provide food, rest, sex workers, alcohol and drugs. They pick up the women, use them and leave them at some other 'dhaba', where they are used by other drivers and local youths. As a result, truck drivers are crucial in spreading STDs and HIV infection throughout the country. In a study from India,

87% of long distance lorry drivers were found to be sexually promiscuous, of whom only 11% used condoms during commercial sex. [9]. Indian truck drivers have an HIV prevalence rate of 5.7 % [10] far higher than the Indian national average of about 0.9 % [11]. In another study in India , it was found that a high proportion of HIV positive patients amongst STD clinic attendees were truck drivers, who generally acquired infection from commercial sex workers on the highways.. More than half of truck drivers (56.86%) were found to have HIV antibodies [12]. Numbers of programmes have been launched to create HIV/AIDS awareness in truck drivers in India. This study aims to find out HIV awareness in truckers as well as sexual promiscuity and condom use in them.

MATERIAL AND METHODS

This cross sectional study is based on information collected from survey of long-distance truck drivers and their assistants. A pre -coded questionnaire was administered to each trucker in a face-to-face interview. Pre- coded questionnaire included the data regarding socio-demographic characteristics of the study population, Knowledge, opinions and attitudes related to HIV/AIDS, source of the messages on prevention of HIV/AIDS, exposure to commercial sexual workers in study population and condom use with most recent commercial partner in promiscuous truckers. Study was conducted in first half of the year 2011 after talking institutional ethical committee approval. Informed consent of all the participants was taken. A team of 10 interviewers were trained prior to data collection. The study population comprised truck drivers, their assistants and mechanics. National AIDS Control organization has estimated samples size of 267 for such studies [13] .On checking from the check post at national highway it was found 3030 long distance driver passes through the highway every month so a sample size of 303 (10 % of 3030) was estimated . All in all, a sample of 303 truckers was approached for interviews though the truckers that accepted to be interviewed were 284. The selection of truckers was based on first come basis i.e. whichever truck stopped at the point where the interviewers were stationed was approached for an interview. The first person that alighted from each truck was screened and, if eligible for interview, asked if they would be willing to participate. Only truck drivers, mechanics or assistants who had not already participated in the study were eligible for interviews. The questionnaire used in this study was pre-tested. The pre-test helped to highlight ambiguities and inconsistencies, which were corrected. The pretest also helped to determine best language and time for the interviews. After completing all the interviews, the responses were coded and entered in the

computer. The analysis was done using Epi Info package. Chi square test was applied for statistical analysis.

RESULTS

Socio-demographic characteristics of the study population

Out of 284 truckers who accepted to conduct face-to-face interview, 64.1 % were truck drivers, 31.7 % were truck driver’s assistants and 4.2 % were mechanics. Socio -demographic characteristics of truckers is shown in Table1. A majority of the truckers interviewed were between 21 and 40 years of age representing 73.3 % of the total sample. Most truckers interviewed were Hindu (43 %) followed by Sikh (30 %), Muslims (20%) and others (7%). Most truckers (77 %) were married, 22 % of the truckers were single and 1 % were divorcee. Educational levels have been found to have a strong association with ones reproductive behavior and contraceptive use [14]. Half of the truckers (50 %) had primary level education while 43 % had attained secondary level education and 7 % truckers were uneducated. 47.6 % truckers stayed away from home less than 10days in a month, 36.2% truckers 10 to 20 days and 16.2% truckers 20 to 30 days in a month.

Table 1. Socio-demographic characteristics of the study population

Characteristics	Frequency	Percentage
Distribution by age group		
Less than 20	16	5.6
21-30	94	33.2
31-40	114	40.1
41-50	43	15.1
50+	17	6.0
Distribution by religion		
Hindu	122	43.0
Sikh	85	30.0
Muslim	57	20.0
Others	20	7.0
Distribution by Marital status		
Married	219	77.0
Unmarried	62	22.0
Divorce	3	1.0
Distribution by Education status		
Primary level	142	50.0
Secondary level	122	43.0
Uneducated	20	7.0
Distribution according to number of days spent or expected to spent away from home		
1-10 days	1351	47.6
11-20 days	03	36.2
21-30	46	16.2

Table 2. Knowledge, opinions and attitudes related to HIV/AIDS

Characteristics	N 284	Percentage	95% confidence interval
Ever heard of HIV/AIDS (Yes)	270	95.1	93.8 - 96.4
Think that a person can get HIV from:			
Mosquito bites	43	15.1	13.0 - 17.3
Sharing meals	15	5.3	3.9 - 6.6
Infected needles/ Blood transfusion	258	90.8	89.1 - 92.5
Sexual route	250	88.0	86.1 - 89.9
Mother to child during pregnancy	187	65.8	63.0 - 68.6
Know that people can prevent HIV by :			
Condom use	213	75.0	72.4 - 77.5
Faithfulness	226	79.6	77.2 - 81.9
Abstinence	254	89.4	87.6 - 91.3
Treating pregnant infected women	11	3.9	2.7 - 5.0
Knows that a healthy looking person can be infected :			
Yes	261	91.9	90.3 - 93.5
No	10	3.5	
Don't know	13	4.6	

Table 3. Distribution of respondents according to source of the messages on prevention of HIV/AIDS

Source	Heard/Seen (Number)	Percentage	95% Confidence interval
Radio	252	88.7	86.8 – 90.6
Posters	177	62.3	59.4 – 65.2
Drama	97	34.2	31.3 – 36.9
Brochures	117	41.2	38.3 – 44.1
Signposts /Billboards	160	56.3	53.4 – 59.3
Television	142	50.0	47.0 – 53.0

Knowledge, opinions and attitudes related to HIV/AIDS

Table 2 presents the data on knowledge, opinions and attitudes related to HIV/AIDS. Almost all truckers 270 (95.1%), with the exception of fourteen (4.9%), had heard of HIV/AIDS. The truckers generally knew that HIV could be transmitted by infected needles /blood transfusion (90.8%), from sexual route (88.0 %), or from mother to child during pregnancy (65.8 %). However 15.1 % of the truckers thought mosquito bites could transmit HIV and 5.3 % believed that one could get infected by sharing meals. Most truckers (91.9 %) were aware that a healthy looking person could be infected with HIV. The best known method for preventing HIV was abstinence (89.4%), followed by faithfulness (79.6%) and condom use (75.0 %). Only 3.9% of those who knew that HIV could be transmitted from mother to child also knew that treating

pregnant infected women could prevent this transmission of infection

Source of the advertisement on prevention of HIV/AIDS

If a trucker indicated that he had ever heard or seen an advertisement on prevention of HIV/AIDS, the study sought to establish the source. This is critical to determine the most effective channel of communication. The results in Table 3 indicated that 88.7 % of the truckers had heard HIV/AIDS messages on radio, 62.3% had seen messages on posters while 56.3 % had seen advertisements on signposts/billboards. Other sources of information on HIV/AIDS prevention to the truckers included friends (16.7%), newspapers (11.1%), seminars (5.6%) and television (50%).

Exposure to commercial sexual workers (CSW)

Tables 4 represent the data regarding exposure of truckers to commercial sex workers in last three months. To avoid the recall bias exposure to commercial sex workers in last three months was included in the study. Almost one-third (26.06%) reported intercourse with at least one 'commercial' partner (partner with whom sex was exchanged for money) in last 3 months. 10.92% truckers reported exposure to one CSW, 9.15% to two, 3.88 to three to four and 2.11 to five or more CSW in last 3 months.

Table 4. Exposure to commercial sexual workers in study population

Number of commercial sexual partners in the last 3 months	Number	Percentage
0	210	73.94
1	31	10.92
2	26	9.15
3-4	11	3.88
5+	6	2.11
Total	284	100

Table 5. Condom use with most recent commercial partner in promiscuous truckers

Characteristic	Number	Percentage
Condom use at last sexual contact	N 74	Percentage
Yes	52	70.3
NO	22	29.7
Reason for no condom use	N 22	Percentage
Not available	9	40.9
Too expensive	2	9.1
Partner objected	0	0.0
Don't like them	8	36.4
Didn't think it was necessary	1	4.5
Itching	0	0.0
Others	2	9.1

Condom use with most recent commercial partner

If a trucker reported exposure to commercial sex workers he was asked condom use with most recent commercial partner. Data are presented in Table 5. Amongst the truckers who reported having sexual intercourse with a commercial partner in the past 3 months 70.3% used a condom at the last sexual contact. Of the 22(29.7%) truckers who said that they

did not use a condom, eight said that they didn't like it, nine said that condoms were not available, and two said that they thought it wasn't necessary.

DISCUSSION

The role of mobile populations in the spread of the HIV has been documented in several countries worldwide (15). The role of truck drivers and sex workers in the spread of HIV has been studied in Africa (16), India (17), and the USA (18). Due to the migratory nature of their occupation, truck drivers tend to have multiple sexual partners. There has been a number of major HIV/STI prevention projects aimed at truckers in India. Measures to prevent the spread of infection in truckers have included condom distribution and attempts at increasing health seeking activities and education generally as well as efforts to reduce partner numbers.

The study was done to find out HIV awareness, sexual promiscuity and condom use in truckers. The study showed 95.1% truckers have heard the name of HIV/AIDS and 88.0% generally knew that HIV could be transmitted by sexual route. Although truckers were having high awareness of HIV but one-third (26.06%) truckers reported intercourse with at least one 'commercial' partner (partner with whom sex was exchanged for money) in last 3 months. Although 75.0% truckers knew that HIV can be prevented by use of condom but 70.3% (out of promiscuous truckers) used a condom while having sexual intercourse with a commercial partner. Use of condom by truckers was found high in comparison to study (11%) done by Rao et al [9].

This study highlights high-risk behavior of long distance truck drivers inspite of having adequate knowledge regarding route of transmission and prevention of HIV through mass media. The HIV/AIDS prevention projects in truck drivers should focus on behaviour change and on further exploring and enhancing condom use both with commercial and casual partners.

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