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Awareness of HIV/AIDS among Transportation Staffs in Dharan Municipality, Sunsari, Nepal

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Abstract

Background: *Transportation workers are the high risk group for HIV/AIDS infection because they travel frequently; often engage in unsafe sex to reduce their loneliness. The aim of study is to identify awareness of HIV/AIDS among transportation staff and to find out association between awareness of HIV/AIDS and selected variables.*

Methodology: *Cross sectional, descriptive study with sample of 180 staff (driver, conductor and helper) of buses and trucks of Dharan city. Purposive sampling technique was used with pretested semi structured questionnaire.*

Results: *The median age of drivers was 28.5, conductor's 28 and helper's 21 years. Most of them (84.2%) were within the age group of 15-34 years. Majority stays (77.2%) less than a week away from home. Almost 91.4% had heard about HIV/AIDS. Still 36.1% believed HIV is transmitted by insect bite whereas 18.9% believed it is transmitted by having food together. About 22.8% of respondents did not know that HIV can be transmitted from pregnant mother to child. Thirteen percent believed that HIV/AIDS status of self should be kept secret with sexual partner. More than (56.7%) had first sexual exposure at the age of 19 or below. Majority (77.4%) had not used condom at first sexual intercourse. About 15.2% has sex with commercial sex workers.*

Conclusion: *Although conductors had more adequate knowledge on HIV/AIDS than drivers and helpers, however, there is still gap in the adequacy of knowledge of HIV/AIDS which demands continuous scrutiny and interventions.*

Keywords: *conductor, driver, helper, HIV/AIDS, transportation staff*

1. INTRODUCTION

A large number of people in the Nepal are unaware of HIV infection, even though aggressive awareness program regarding HIV/AIDS from different stakeholders have been launched, the case of HIV/AIDS are increasing rapidly and the HIV infection is highest among the high risk groups, such as truckers, sex workers, migrant workers, policeman/army personnel, businessman etc. The UN predicts 68 million more deaths over the next twenty years unless efforts at preventive and treatments are increased. [1]

Acquired Immune Deficiency Syndrome (AIDS) was first recognized internationally in 1981. South Asia has more than 20 per cent of the world's population facing an HIV epidemic with an estimated 5.5 to 6 million people have been HIV infected.[1] The first case of AIDS in Nepal was reported in 1988. In Nepal as per 15 July 2009 a cumulative total cases of 14320 HIV infections, including 2493 AIDS cases and 534 deaths from AIDS, have been reported.[2]

The association between migration, mobility, and infection with the human immunodeficiency virus (HIV) has been documented almost since the beginning of the epidemic of acquired immunodeficiency syndrome (AIDS). Early studies suggested that rates of HIV infection amongst people who had moved within or between countries were higher than amongst those who did not travel.[3] Result from a study conducted by Niraula S.R in Sunsari, Dharan indicated none of the drivers were graduated and very few (1.4%) were educated up to intermediate. Trend of poly marriage was common in low educational category. It was found that the drivers, who had attitude to have multiple sex partners, were nearly 4 times more likely to visit commercial sex workers.[4]

One interventional study conducted by Sharma M in adults in Institute of Medicine, Kathmandu, the mean scores on knowledge about the mode of transmission of HIV/AIDS as a whole in the pre-test and the post-test were found 6.37 and 13.92 with the standard deviations of 4.85 and 1.63 respectively. Further the difference in knowledge as a whole between pre-test and the post-test was found highly significant.[5]

A study of Lahore, Pakistan highlights that Truck drivers are more vulnerable to HIV infection, because they travel a lot (day and night), often out of homes for months. They are free from social pressures of the family. Unsafe sex with commercial sex workers and fellow crew members is not uncommon.[6] A survey of truck drivers visiting sex workers at truck stops in KwaZulu-Natal, South Africa, indicated that 37% of all men always stopped for sex along the route, 29% reported never using condoms with sex workers.[7]

Studies on awareness of HIV/AIDS among drivers of various transportations have been done by various organizations and scholars but all such studies do not describe the study on awareness level among conductors and helpers apart from drivers as to incorporating all levels of staffs working in the vehicle. For apparent reasons, every study has partial focus on specific area and issues. Nevertheless, many of them are useful to researchers who have taken many thoughts from their contents and methodology. According to UNAIDS, although AIDS is no longer a new syndrome, global solidarity in the AIDS response will remain a necessity. Readers will be benefitted from the findings of the study which shows there is enough room to explore in this area in the country like Nepal to increase knowledge level on HIV/AIDS among people. The objectives of this study were to assess the level of awareness regarding HIV/AIDS among the transportation staff. To find out association between awareness about HIV/AIDS and selected demographic variables.

2. METHOD AND MATERIAL

Study design: This was a cross sectional study completed in the year 2012. In this study 180 worker of bus and truck (driver, conductor and helper) of Dharan city, Nepal, were interviewed on nonrandom basis, using purposive sampling technique. According to record of transportation office of Dharan there were 345 buses and 300 Trucks. The study population was calculated on the basis of staffs working in the bus and truck.

Statistics: Chi square test was used to find out statistical significance between two or more categorical data i.e. selected demographic variables individually applied with knowledge, attitude and risk taking behavior. Spearman Rank Correlation test was applied to identify overall correlations between knowledge, attitude and risk taking behavior. Level of significance was set at <0.05.

Instrument*:* Semi structured, s*elf-prepared, pretested and validated interview schedule was* used consisting following parts:

1. Questionnaire Related to Measurement of Knowledge Regarding HIV/AIDS. There were total 24 questions. The answer which is true is scored 1 otherwise 0. Maximum obtainable score was 25 and minimum was 0. Obtained score was converted into percentage and their correlation with other variables was studied along with it was graded as: a) ≥60% = Adequate knowledge b) <60% = Inadequate knowledge
2. Questionnaire Related to Measurement of Attitude pertaining to HIV/AIDS. The three point likert scale was used consisting total 6 statements. Maximum obtainable score was 6 and minimum was 0 and was graded as: (a) ≥60% = High Positive attitude (b) <60% = Low positive attitude Measurement of Risk Taking Behavior concerning HIV/AIDS. There were total 8 questions. Every answer which gave sense of risk taking behavior was given 0 marks and 1 was given for every non risky behavior answer. The marking was increased + 1 as the response was more close to complete non risk taking behavior pertaining to HIV/AIDS. Maximum obtainable score was 12 and minimum was 0. Obtained score was was graded as: a) ≥60% = Low Risk b) <60% = High Risk
3. Finally individual score of knowledge, attitude and practice was summed to find out **awareness** of HIV/AIDS and used statistical correlation with other variables. Total obtainable score was 43 and minimum 0 which was graded as: a) ≥60% = Adequately Aware

   b) <60% = Inadequately Aware

3. RESULTS

In the present study total respondents were 180. Age range was 15 to 66 years old, in which driver's median age 28.5, conductor's 28, and helper's 21. Respondents not accommodating with family and staying alone were 22.3%. Most of the respondents (88.8%) earn more than Rs 90 per day. Exactly 49% were working in vehicle for 12-18 hours per day. Majority (77.2%) of them were remaining away from home for less than a week.

Almost 91.4% of respondents had heard about HIV/AIDS and among them 19.4% of respondents didn't know that HIV and AIDS is different. Still 20% respondents did not know HIV/AIDS can be found even in healthy looking person. About 40% of them believed that there is treatment available for HIV/AIDS. Most of them had not heard about volunteer counseling and testing (VCT) (81.7%) and CD_4 count (96.5%).

Majority (92.2%) of respondents said transmission of HIV/AIDS is from unsafe sex. However, still 36.1% of respondents believed that it can also be transmitted via insect bite followed by those who believed that transmission can occur by having food together was 18.9% of respondents. More than one fourth (22.8%) of the respondents had no knowledge that HIV/AIDS can be transmitted from mother to child during pregnancy (table 1).

Table 1: Knowledge on Transmission of HIV/AIDS (n= 180)

S. no	Statements	Yes %	No %
	HIV transmits from –		
1	unsafe sexual intercourse	92.2	7.8
2	Use of unscreened blood	91.7	8.3
3	Sharing sharps	91.7	8.3
4	Pregnant Mother to Child Transmission (PMTCT)	77.2	22.8
5	Insects bites	36.1	63.9
6	Food sharing	18.9	81.1

Most of the respondents (89.4%) had knowledge that HIV/AIDS can be prevented by avoiding sharing of infected syringes. Equal percentage of the respondents (88.9) had understanding on the facts like making only one faithful partner and using condom in every sexual intercourse for the prevention of HIV/AIDS. However, more than one third (32.0%) of the respondents did not believed that abstinence could be one of the ways to prevent the infection (Table 2)

Table 2: Knowledge on Prevention of HIV/AIDS (n=180)

S. No	Statements	Yes %	No %
	HIV/AIDS can be prevented by –		
1	Making only one faithful partner	88.9	11.1
2	Using condom in every sexual intercourse	88.9	11.1
3	Abstinence	67.8	32.2
4	Use of screened blood or articles	87.2	12.8
5	Avoiding sharing of infected syringes	89.4	10.6

Among 180 respondents, 164 had sexual exposure. Among them more than half (56.7%) were 19 or below years of age when they came into sexual contact first times in their life followed by 77.4% had not used condom during the time. Nearly half of the sexually exposed respondents (47.7%) had premarital sexual intercourse. Respondents of 15.2% had sexual contact with commercial sex workers (CSW). More than 40.0% had multi-partner (Table 3).

Table 3: Risk Taking Behavior of Respondents (n=180)

S. No	Statements	Yes %	No %
1	Had Premarital Sexual intercourse	47.7	52.3
2	Age at first sexual inter course: ≤ 19 yrs	56.7	43.3
3	First sexual intercourse with wife	41.5	58.5
4	Condom use at first sexual inter course	22.6	77.4
5	Sexual intercourse with CSW	15.2	84.8
6	Multi partner	40.2	59.8

Among the transportation staffs, relatively almost all conductors (97.7%) were adequately aware on HIV/AIDS followed by drivers (91.0%) and helpers (85.5%). (Fig.1)

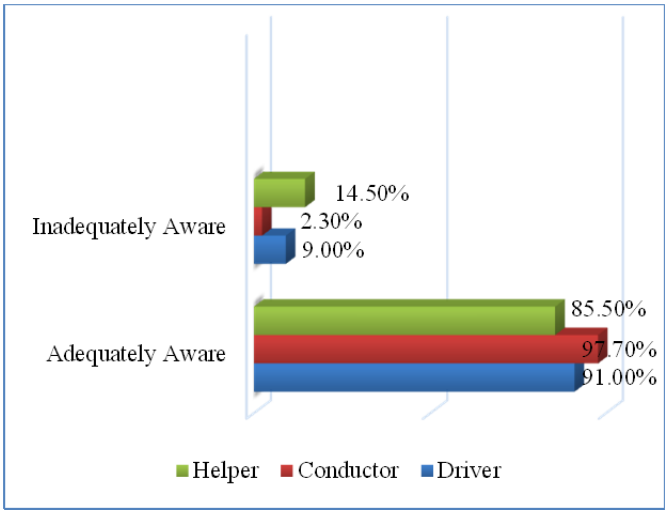

Fig 1: Level of awareness of HIV/AIDS

Inadequacy of knowledge on HIV/AIDS among the age group 15 – 24 years was with the 35.0% of the respondents followed by dalit (60%), married (32.1%), literate (32.1%), and those having income less than or equal rupees 90 per day (50.0%) and helpers(55.0%)There was significant association between education and knowledge, (p=0.034) ethnicity and knowledge (p=0.026), income and knowledge (p=0.044) and the nature of work and knowledge (p=0.002) of HIV/AIDS. (Table 4).

Table 4: Associations of Knowledge with Demographic Characteristics

Characteristics	Knowledge on HIV/AIDS				p Value
	Adequate		Inadequate		
	No.	Percent	No.	Percent	
Age (years)					
15–24	50	64.9	27	35.0	0.623
25–34	53	71.6	21	28.3	
35–44	13	72.2	5	27.7	
>45	9	81.8	2	18.1	
Ethinicity					
Dalit	6	40.0	9	60.0	0.026*
Janajati	75	70.0	32	29.9	
Upper caste	44	75.8	14	24.1	
Marital Status					
Unmarried	49	72.0	19	27.9	0.337
Married	76	67.8	36	32.1	
Education Status					
Illiterate	9	100.0	0	00.0	0.034*
Literate	116	67.8	55	32.1	
Income/day					
≤Rs.90	10	50.0	10	50.0	0.044*
>Rs.90	115	71.8	45	28.1	
Nature of Work					
Driver	52	74.2	18	25.7	0.002*
Conductor	35	85.3	6	14.6	
Helper	31	44.9	38	55.0	

***p** Chi-square test, *Significant at <0.05*

Most of the respondents (47.4%) of age group 35 – 44 years had low positive attitude towards people living with HIV/AIDS (PLWHA). Ethnicity and attitude was found significant association (p=0.023). The association of attitude and nature of work was highly significant (p = 0. 0.003)

Respondents of age group 25 – 34 (27.0%) had high 'risk taking behavior' pertaining to HIV/AIDS followed by upper caste ethnicity (63.5%), janajati, married respondents (63.5%), literate, respondent having income less than or equal to rupees 90 per day (31.8) and conductor. (Table 5)

Table 5: Associations of Risk Taking Behavior of the Respondents with Demographic Characteristics

Characteristics	Risk Taking Behavior				P[p] Value
	High		Low		
	No.	%	No.	%	
Age (years)					
15 – 24	45	24.1	32	75.9	
25 – 34	46	27.0	28	73.0	0.370
35 – 44	9	21.0	9	79.0	
>45	9	23.1	2	76.9	
Ethinicity					
Dalit	6	40.0	9	60.0	0.227
Janajati	66	61.3	41	38.7	
Upper caste	37	63.5	21	36.5	
Marital Status					
Unmarried	37	55.3	31	44.7	0.124
Married	72	63.6	40	36.4	
Education status					
Illiterate	7	15.4	2	84.6	0.236
Literate	102	59.8	69	40.2	
Income/day					
≤Rs.90	12	31.8	8	68.2	0.569
>Rs.90	97	24.0	63	76.0	
Nature of Work					
Driver	45	64.1	25	35.9	0.011*
Conductor	31	74.4	10	25.6	
Helper	33	48.7	36	51.3	

***p** Chi-square test, *Significant at <0.05,*

Attitude and knowledge was positively correlated (r= 0.560) and it was highly significant (p = 0.001). This means respondents having increase level of knowledge on HIV/AIDS, had positive attitude towards PLWHA. Risk taking behavior and knowledge was negatively correlated (r = -0.067), however, statistically it was not significant (p= 0.352). This shows respondents having increase level of knowledge had decreased risk taking behavior (Table 6).

Table 6: Correlation between attitude and risk taking behavior with level of awareness

Variables	Knowledge		Attitude	
	r value	P value	r value	P value
Attitude	0.560	0.001	-	-
Risk Behavior	- 0.067	0.352	-0.193	0.007

Spearman Rank Correlation, Significant at <0.05

4. DISCUSSION

Almost every one (92.9%) of respondents had heard about HIV/AIDS. A study of national demographic and health survey 2006 also indicated that over 90.0% of the men in Nepal have heard of AIDS.[9] this represents a substantial increase since 2000 that awareness on HIV/AIDS is in the increasing trends. The study showed that almost all conductors (97.7%) were adequately aware on HIV/AIDS followed by drivers (91.0%) and helpers (85.5%). This provides the evidence to believe that a link existed between the level of awareness and their nature of work.

Majority of the respondents had adequate knowledge on mode of transmission and prevention of HIV/AIDS but in contrast, a study of Anwar Muhammad at Lahore depicts that a large number of respondents had no knowledge about the mode of transmission of AIDS, high risk groups, sign and symptoms of AIDS and causes of HIV/AIDS infections.[6] Nearly one fourth of respondents (21.8%) were unaware that HIV/AIDS is sexually transmitted infection. Therefore these numbers of respondents were probably the most compelling part of the evidence to raise awareness. S. Balla et. al. concluded in their study that 53% of respondents considered sex as main route of transmission of HIV.[8] It clearly shows that there is increase in awareness level at present as compare to those days.

Majority (74%) said that HIV virus could be found even in the healthy looking person. The result is supported by national demographic health survey (NDHS) report 2006 indicating relatively larger proportion of respondent (75% of men) is aware that a healthy-looking person can have the AIDS virus.[9] Majority of the respondents (81.7%) said HIV/AIDS can be prevented by using condom in every sexual intercourse. This result is supported by the report of World Bank compiled about recent 2007 survey of truckers in Pakistan revealed that 44.0% believed in efficacy of condoms in the prevention of HIV/STIs.[10] Similarly S. Balla's study also quote that 70.7% considered condom as a protective measure for AIDS.[8] This seems that greater percentage of respondents of Dharan were aware as compared to Pakistan and Jamnagar city, Gujrat.

Respondents who believed transmission of HIV/AIDS from unsafe sex were 84.8%, from unscreened blood and sharing sharps (needle, syringe etc) were the same percentage (83.3%). Majority (71.1%) of them believed that it can be transmitted through pregnant mother to child as well. Still 33.0% of respondents consider that it can be transmitted from insect bite and 17.8% thought that transmission can be from food sharing. A study of Anwar Muhammad et al. and Niraula S. supports the findings.[6, 4]

5. CONCLUSION

Although conductors had more adequate knowledge on HIV/AIDS than drivers and helpers, however, there is still gap in the adequacy of knowledge of HIV/AIDS among all. A common variable which is associated with 'Knowledge on

HIV/AIDS', 'attitude of respondents toward people living with HIV/AIDS' and 'risk taking behavior' is respondent's 'nature of work'.

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