

Knowledge, attitude and practice on HIV/AIDS among the highway coach staff in Aung Mingalar Highway Coach Station

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A cross-sectional descriptive study was carried out in 2009 to assess the knowledge, attitude and practice on HIV/AIDS among the highway coach staff in Aung Mingalar Highway Coach Station in Yangon. A total of 286 highway coach staff was interviewed using a pre-tested structured questionnaire. Fifty-seven percent of the respondents could identify the modes of transmission and prevention methods regarding HIV/AIDS. However, there were still misconceptions and wrong beliefs concerning the disease transmission and prevention methods. Condom knowledge among the highway coach staff was high. Fifty-one percent of the respondents in the study had positive attitude towards HIV infected persons and preventive measures. The condom use rates with the sexual partner during the last three months were 85% and 88% for Casual Acquaintance (CA) and Commercial Sex Worker (CSW), respectively. There are statistically significant associations between sexual practice (having sex with a CSW during the last 3 months) and marital status, indicating that unmarried respondents were more likely to take the risk behaviour than married respondents, and with being away from home for more than 2 months meaning that the longer the duration away from home, the higher the risk of practicing the risky sexual behaviour.

INTRODUCTION

The human immunodeficiency virus (HIV), causing acquired immunodeficiency syndrome (AIDS), is an unprecedented public health emergency, having already caused enormous ill health and mortality worldwide. Given the scale of the epidemic, AIDS is now considered not only a health problem, but also a developmental and security threat. Three decades into the epidemic, there is still no vaccine and cure. There is, however, considerably more information available on how the virus is spread, as well as an increased understanding about prevention strategies and what constitutes effective treatment and care. The social and economic conditions that facilitate the spread of HIV are also well understood. Despite this, risk behaviours and risk environment continue to persist, and HIV continues to spread among

individuals and across national and regional borders.

HIV/AIDS problem has been recognized as one of the major public health problems in Myanmar. Key population at high risk and vulnerability included sex workers, clients of sex workers, drug users, men who had sex with men, and partners of people living with HIV. Thus, most of the prevention and surveillance activities aim at targeting the most at risk. However, high priority is also given to populations vulnerable to risk which include institutionalized populations, mobile population and young people.

Highway coach staff (highway bus drivers and their assistants) represent one of the key bridge population groups between high and low risk communities. The nature of their work and the stress associated with long periods of travel and being away from family for prolonged stretches of time can

result in the drivers and spares indulging in risky behaviours with regard to HIV/AIDS.

The floating population of transport workers is one of the major sources of infection to the low risk partners which are mostly their life time partners who are naive about disease transmission. Thus, by understanding the knowledge, attitude and the risk taking behaviour of the highway coach staff, preventive options and health educational input can be provided to the National AIDS programme for better development of strategies aiming towards the bridging population.

General objective

- To assess the knowledge, attitude and practice on HIV/AIDS among the highway coach staff in Aung Mingalar Highway Coach Station.

Specific objectives

- To identify the socio-demographic characteristics of the highway coach staff in Aung Mingalar Highway Coach Station
- To determine the levels of knowledge, attitude and practice on HIV/AIDS among the highway coach staff in Aung Mingalar Highway Coach Station
- To find out the association between the socio-demographic characteristics and (i) knowledge scores, (ii) sexual practice of the highway coach staff in Aung Mingalar Highway Coach Station

MATERIALS AND METHODS

Study design

Cross-sectional descriptive study

Study population

Highway coach staff (drivers and spares) in Aung Mingalar Highway Coach Station

Study area

Aung Mingalar Highway Coach Station, Yangon

Study period

July 2009 to October 2009

Sample size

A total of 286 coach staff were included in the study.

Sampling method and procedure

Highway coach staff are mobile persons who come into highway station only during their assigned duty. So, consecutive sampling was used until the required number of sample size was obtained.

Data collection tool and technique

A pre-tested face-to-face interview questionnaire was used for data collection. Before data collection, pre-test was done with twenty drivers and spares in highway coach station and corrected some of the questions. Before asking the attitude questions, the Likert scales card was distributed to the respondent and described him how to answer the attitude questions. In this study, 286 highway coach staff were participated to reduce drop-outs during data collection. But, drop-outs were not seen and data from all respondents were used for analysis. After obtaining informed consent, information concerning the highway coach staff's socio-demographic, knowledge, attitude and practice on HIV/AIDS was obtained in a private room.

Data analysis

All the collected data were checked for completeness and consistency on a daily basis by the investigator before leaving the data collection site. Data entry was done by using Epi data software version 3.1. After data entry, data cleaning was done by checking frequency distribution tables, graphs, outliers and errors. Analyzing of the data was done by using SPSS 16.0 version. The association for categorical data was calculated using the Chi square statistical test.

Ethical consideration

Informed consent was obtained from all the interviewees and also from the supervisory groups. Ethical clearance was obtained from

the ethical board and Post-graduate Board of Studies.

RESULTS

Socio-demographic characteristics of the highway coach staff in Aung Mingalar Highway Coach Station

A total of 286 highway coach staff participated in this study. Among them, 144 drivers and 142 spares were included. About 75% of the highway coach staff were from the ages of 25 to 49 years. Their mean age (years) was 33.12 ± 9.275 SD with a minimum age of 18 years and maximum age of 59 years. About 72% of the respondents had middle and high school level of education, 32% were singles, 63% received income of kyats 100,000 and over per month, 46% had over five years of service, and 37% were away from home for more than one week.

Knowledge on HIV/AIDS among the highway coach staff in Aung Mingalar Highway Coach Station

Although most of the respondents had correct knowledge regarding major mode of transmission, there were still misconceptions regarding HIV transmission. About 27% of the respondents stated that HIV can be transmitted by mosquito bite and 12% mentioned that eating or drinking together with an HIV infected person can transmit the disease. Eighty-two percent said that being faithful to an uninfected life-time partner could prevent the transmission of the disease. Using condom in every sexual act with unknown partners was correctly answered by 74% of the respondents. Nearly 60% of the respondents knew that avoidance of unnecessary injection was a preventable method. Mean knowledge score of highway coach staff in Aung Mingalar Highway Coach Station was 12 with standard deviation of 2. The median knowledge score was 12 and maximum and minimum were 2 and 15, respectively. A total of 15 points were given and who obtained 12 marks and above were categorized as high and below 12 marks were categorized as low. Among

the 286 respondents, 164 (57.3%) obtained high knowledge score and 122 (42.7%) had low knowledge score (Table 1).

Table 1. Knowledge on HIV/AIDS among the highway coach staff in Aung Mingalar Highway Coach Station

Variables	Correct	Incorrect	Don't know	Total	
	No. (%)	No. (%)	No. (%)	No. (%)	
<i>Knowledge on mode of transmission of HIV/AIDS</i>					
Unprotected sex	267 (93.4)	10 (3.5)	9 (3.1)	286 (100)	
Mosquito bite	182 (63.6)	78 (27.3)	26 (9.1)		
Unscreened blood transfusion	273 (95.5)	5 (1.7)	8 (2.8)		
Eating or drinking	248 (86.7)	36 (12.6)	2 (0.7)		
Mother to fetus	252 (88.1)	21 (7.3)	13 (4.5)		
Tattooing	267 (93.4)	14 (4.9)	5 (1.7)		
<i>Knowledge on prevention methods of HIV/AIDS</i>					
Abstained from sex	186 (65)	93 (32.5)	7 (2.4)		286 (100)
Unnecessary injection	171 (59.8)	106 (37.1)	9 (3.1)		
Using condom	212 (74.1)	67 (23.4)	7 (2.4)		
Being faithful to partner	235 (82.2)	47 (16.4)	4 (1.4)		

Attitude on HIV/AIDS among the highway coach staff in Aung Mingalar Highway Coach Station

Although 37.1 percent of highway coach staff strongly agreed that they were willing to work together with HIV-positive persons, 12.9 percent strongly disagreed that they were willing to buy and use goods and foods from sellers who is HIV-positive. Over half of the respondents agreed eating or drinking together with HIV-positive person and 6.6% disagreed that they were willing to take care of AIDS patient in their family. Twenty-seven percent of all respondents said that they strongly agreed that condom must be used with regular partner and lover and only 1% strongly disagreed on keeping the condom to prevent HIV infection. About 20 percent of the respondents disagreed that a healthy and handsome man or a beautiful girl can be HIV- positive (Table 2).

Table 2. Attitude on HIV/AIDS among highway coach staff in Aung Mingalar Highway Coach Station

Variables	Strongly agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly disagree (%)	Total (%)
I am willing to work with an HIV-positive person	106 (37.10)	117 (40.90)	4 (1.400)	42 (14.70)	17 (5.90)	
I will buy and use goods and food from seller who is HIV-positive	36 (12.60)	109 (38.10)	10 (3.50)	94 (32.90)	37 (12.90)	
I will eat together with a person who is HIV-positive	59 (20.60)	155 (54.20)	3 (1.00)	51 (17.80)	18 (6.30)	286 (100)
I am willing to provide care to AIDS patient	146 (51.00)	113 (39.50)	2 (0.70)	19 (6.60)	6 (2.10)	
Condom must be used with a regular partner and lover	78 (27.30)	150 (52.40)	7 (2.40)	46 (16.10)	5 (1.70)	
Keeping a condom prevents HIV infection	99 (34.60)	138 (48.30)	8 (2.80)	38 (13.30)	3 (1.00)	
A healthy looking beautiful girl may be HIV positive	67 (23.40)	118 (41.30)	39 (13.60)	52 (18.20)	10 (3.50)	
Tell someone if I have HIV infection	67 (23.40)	140 (49)	4 (1.40)	54 (18.90)	21 (7.30)	286 (100)
I can be at risk of HIV infection	23 (8.00)	89 (31.10)	32 (11.20)	110 (38.50)	32 (11.2)	
Being away from family is high risk of HIV infection	68 (23.80)	149 (52.10)	15 (5.20)	45 (15.70)	9 (3.10)	

Sexual intercourse and condom use within last three months among highway coach staff in Aung Mingalar Highway Coach Station

Among 286 highway coach staff, 61 (21.3%) had sexual intercourse with casual

Table 3. Sexual intercourse and condom use within last three months among the highway coach staff in Aung Mingalar Highway Coach Station (n=286)

Having sex within last three months	No.	Percent
<i>Having sex with a casual acquaintance (CA)</i>		
Yes	61	21.3
No	225	78.7
<i>Use of condom during the last sex with CA</i>		
Yes	52	85.2
No	9	14.8
<i>Having sex with a Commercial Sex Worker (CSW)</i>		
Yes	62	21.7
No	224	78.3
<i>Use of condom during the last sex with CSW</i>		
Yes	55	88.7
No	7	12.3

acquaintances within last three months. Among the respondents who had sexual intercourse with casual acquaintance within last three months, 85.2% had used condom. About 22% had sexual intercourse with a CSW within last three months, and among them, about 89% had used condom (Table 3). Among 92 single respondents, 32.6% of them had history of sexual intercourse with commercial sex worker within last three months and 93.3% of them used condom at last act.

The highway coach staff who gave history of sexual intercourse with CSWs within last 3 months were mostly found in 18 to 24 years age group and education level of primary school and below. Majority of them were spares, got monthly average income of less than 100,000 kyats and had 5 years and lower duration of service. There was a statistically significant association between marital status and practice. Therefore, unmarried respondents were more likely to take the risk behaviour than married respondents. Since age was also statistically significant, stratified analysis was carried out to see the effect of confounding on marriage, single older highway drivers (above 25 years) were more likely to practice risky sexual behaviour compared to their same age married

counterparts. There was also a statistically significant association between age, being away from home and sexual practice meaning that the longer the duration away from home, the higher the risk of practicing the risky sexual behaviour (Table 4).

Table 4. Association between sociodemographic characteristics and practice (history of sexual intercourse with CSWs within last three months)

Socio-demographic characteristics	Practice		Chi square & P value	
	Yes (%)	No (%)		
Age	18-24 years	19(32.2)	40(67.8)	$\chi^2=4.85$
	25 years and above	43(18.94)	184(81.05)	$p=0.02$
Education level	Primary and below	8(26.7)	22(73.3)	$\chi^2=0.75$
	Middle	21(22.8)	71(77.2)	$p=0.69$
	High and above	33(20.1)	131(79.9)	
Job category	Spares	36(25.4)	106(74.6)	$\chi^2=2.24$
	Drivers	26(18.1)	118(81.9)	$p=0.13$
Monthly average income (Kyats)	<100,000	19(18.1)	86(81.9)	$\chi^2=1.26$
	≥100,000	43(23.8)	138(76.2)	$p=0.26$
Duration of service in the present job	≤5 years	35(22.4)	121(77.6)	$\chi^2=0.12$
	>5 years	27(20.8)	03(79.2)	$p=0.73$
Marital status	Unmarried	31(32)	66(68)	$\chi^2=9.14$
	Married	31(16.4)	153(83.6)	$p=0.003$
Being away from home	<1week	36 (20)	144(80)	$\chi^2=6.71$
	1 week to 2 months	14(18.4)	62(81.6)	$p=0.035$
	> 2 months	12(40)	18(60)	

DISCUSSION

Transport workers are predominately vulnerable to HIV/AIDS. This is because of the nature of their work. In particular the fact that they spend so much times away from home in situations favoring to high risk behaviours. As migrations become more prominent in the developing countries, the risk for transmission of HIV/AIDS also rises among the transport workers. HIV/AIDS is mainly affected to sexually active age groups and destroys the productivity of the country.

As in other studies, majority of the highway coach staff in Aung Mingalar Highway Coach Station were in their sexually active reproductive age years [1, 2]. Since their income seems to be quite well and some were unmarried, the risk taking behaviour towards the HIV/AIDS can be said to be favorable.

Although knowledge on HIV/AIDS was found to be high in this study, there were still misconceptions concerning the detail information of the disease. These findings are also similar to other studies in which general information of HIV are knowledgeable by drivers [2, 3].

Knowledge on preventive method due to sexual mode of transmission revealed that 65% of the respondents knew that abstinence from sexual activity was a preventive method. Eighty-two percent said that being faithful to partner was a preventive behaviour. Using condom was also known as preventive method by two-third of the respondents. These findings are similar to the study in Pune Ahmednagar Highway in India [4] in which knowledge of transmission by heterosexual route was much higher compared to knowledge of other routes of transmission.

Over fifty-seven percent of the respondents had above mean knowledge score. This finding highlights that highway coach staff in Aung Mingalar Highway Coach Station, in general, had good knowledge regarding HIV/AIDS. However, since there are still misconceptions concerning mode of transmission, HIV/AIDS education programs should focus on clear and precise messages concerning mode of transmission and prevention methods.

As an overall, the highway coach staff of Aung Mingalar Highway Coach Station had positive attitude towards HIV-positive persons, and can be considered much higher than the study done by Than Win [2].

Attitude towards risk of infection showed that nearly fifty percent of the respondents felt that they were not at risk. Similar

findings were seen in a study mentioning that most of the respondents did not think they could have HIV infection and did not want to say to other person if they were infected with HIV [2].

Seventy-five percent of the highway coach staff in this study agreed that being away from family was the high risk for HIV infection. A survey conducted by ITF in Uganda [5, 6] showed that 70 percent of the drivers had spent less than a week at home in the previous four months, found lovers and visited CSWs in several different cities along the routes they traveled. Sometimes, the drivers gave a lift to women in exchange for sex. Thus, being away from home is considered as the risk for engaging in behaviors that are likely to transmit the HIV infection.

Premarital sexual behavior was seen among 70.3% of the highway coach staff in this study. Among the 92 single respondents, 72.8% already had sex at the time of the study. Regarding the types of sexual partner, CSW (89.6%), CA (80.6%) and lover (59.7%) were found to be the most common types of partners for premarital sex. This finding pointed out that sexual exposure before marriage was quite high. This finding was higher than the rate observed by San Hla Mu *et al.* in 1993 among the highway drivers in which 42% of the unmarried persons had premarital sexual exposure [3].

In this study, 21% had sexual intercourse with a CSW or CA within the last 3 months. The condom use rates with the sexual partner during the last three months were 85% and 88% for CA and CSW, respectively. The condom use rate in this study was much higher to the study on taxi drivers in 2005 by Than Win which mentioned that condom use among taxi drivers was not satisfactory [2]. The higher condom used rate may be explained by the fact that "100 percent condom promotion activity" has been launched in Aung Mingalar Highway Coach Station in 2009.

There was a statistically significant association between sexual practice (having sex with a CSW during the last 3 months) and marital status indicating that unmarried respondents were more likely to take the risk behaviour than married respondents. There was also a statistically significant association between being away from home and sexual practice meaning that the longer the duration away from home, the higher the risk of practicing a risky sexual behavior.

Based on the study findings, the authors recommend to promote accessibility and availability of clear and precise messages concerning mode of transmission, disease process and disease prevention; and to implement regular refreshment educational training on HIV/AIDS since the population is mobile for highway coach staff.

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