

BEHAVIOR AND HIV/STI SEROPREVALENCE SURVEY AMONG MIGRANT LABORS, THEIR WIVES AND OTHER WOMEN WITH STI SYNDROMES IN KANCHANPUR

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ABSTRACT

Introduction: Migrant people were high risk group in acquiring HIV and others STI. Nepal is facing rapid increase in prevalence among high-risk groups such as sex workers, injection drug users and migrants. Western part of Nepal faces the same threat. The objective of the study is to measure HIV/STI status in-migrant labors, their wives and women with STD syndromes in Kanchanpur.

Methodology: A cross-sectional analytical study was carried out in migrant labors, their wives and women with STD syndromes in year 2009 at Department of Microbiology, Siddhanath Science Campus, Mahendranagar, Kanchanpur.

Results: Out of 208 migrant workers, wife/husband of migrant workers, children of migrant workers 18(8.5 %) were found HIV positive and 40 (19%) had different STI. The HIV acquiring is highly associated with STIs co- infected patients ($p < 0.01$). Fifty-three (26%) respondents always used condom and 47 (23%) did not use. A large number 43(21%) had prostitute as sexual partner and majority of 130 (64%) were stricted to single sexual partner but 49 (24%) had 2 to 4 sexual partners and 24 (12%) had more than 4 sexual partners.

Conclusion: It was found that migrant people were at high risk of acquiring HIV and other STIs. Male migrants may engage in having sexual relationship with multiple partners. Adult migrant had HIV infection. The HIV infection was significantly associated with other STIs.

Key words: Migrants, High-risk groups, Sexual-contact, Kanchanpur

INTRODUCTION

AIDS (Acquired Immunodeficiency Syndrome), an infectious fatal disease caused by Human Immunodeficiency Virus (HIV) is spreading in an unpredictable rate causing huge human and socioeconomic loss.¹ Globally, an estimated 33.4 million (31.1million–35.8 million) people are

currently living with HIV according to UNAIDS. In 2008, an estimated 2.7 million (2.4 million–3.0 million) people were newly infected with HIV.² While the estimated number of PLHA in Nepal is more than 75,000, the recorded number, as reported by National centre of AIDS and STI control (NCASC), is 14,320 (as of July 2009).³

Among different high risk groups, the migrant labor constitutes the significant proportion in certain areas of Nepal, out of the total HIV cases in Nepal, 32, 341 (46%) seasonal labor migrant were estimated for HIV positive.⁴ Mobility or migration must not itself be a risk factor for HIV, but could create conditions and circumstances, that made the migrant workers

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vulnerable to HIV/AIDS. What these people have in common is that they work in low paid, unskilled jobs in hostile environment and their vulnerability rose from their need for company, intimacy and sex. *infection HI* In Nepal, 2 million male migrant workers regularly cross the border facilitating the spread of the virus, similarly thousands of migrant workers cross the borders from neighboring in search of work to Nepal.⁵ Currently, migration is one of the major social factors for the rapid spread of HIV in Nepal. Several bio-behavioral as well as HIV seroprevalence studies conducted in Far Western region of Nepal during different time intervals documented HIV prevalence and inferred that this region was major hot spot of HIV population, mainly due to high rate of migration.⁶

STIs are among the top five disease categories and about one third of STIs globally occur among people younger than 25 years of age.⁷ It has been well established that women with STD syndromes are at higher risk of HIV infection. Firstly, the mode of infection of HIV and other STIs are same. Secondly, it is easier for HIV to enter and cause infection because of dysfunction of first line of defense mechanism (for e.g. ulceration of the skin). Moreover, its transmission is 3-9 times more in patients with STD syndromes as compared to general population.⁸

Based on these data it has been realized that migrant population, especially labor migrant to India was recognized with high degree of confidence. Hence, this study focused on this special population "Migrant labor" who are being at risk of the contracting and spreading this dreaded infection and disease HIV/AIDS. Kanchanpur's low economic status, illiteracy and high rate of migration along with the frequent unsafe practice with female sex workers in Indian cities make this population high vulnerable to acquiring HIV infection. So, the behavior and seroprevalence study in this population not only documents the exact prevalence of HIV seroprevalence and other STIs in this population but also help to control the transmission of HIV in general population through

provision of comprehensive care and support service in collaboration with other INGOs/hospitals located in this district. In Kanchanpur no specific study on the labor migrants is done to generate surveillance data regarding the different types of STIs including HIV/AIDS.

METHODOLOGY

This cross-sectional community based study was carried out by department of Microbiology, Shree Siddhanath Science Campus, Mahendranagar, Kanchanpur, during March to June 2009. Before the initiation of study ethical clearance was approved from the campus administration. The study was carried out on 208 patients who were self reported as migrant, their wives and others (belongs to migrant family). To make the sample more representative and community oriented, they were selected from different sites of Kanchanpur district: antiretroviral therapy centre of Mahakali Zonal Hospital, Nepal National Social Welfare Association (NNSWA) VCT center, HIV/AIDS camp at Jhalari VDC and Dodhara VDC. Migrant's people were enrolled in the study because they were highly vulnerable to HIV/STIs. Once the patients were identified, the verbal and written consent was taken from each patient. Then, a prestructured standard questionnaire was administered to each patient on the following topics: Sexual behavior and knowledge on HIV/STI transmission was reported. These data were kept confidential. Then, blood samples, cervical swabs, endocervical swabs from women and additional urethral swabs from male were collected. Privacy was strictly maintained during sample collection. The patients were selected for diagnosis of different STIs on the basis of vaginal discharge, pain in lower abdomen, chancre on genital organs and pus discharged from urethra. In case of STIs women were not eligible if they were pregnant, reported missed periods or had given birth in the previous six weeks, because of greater susceptibility to vaginal candidiasis at these times. On the day of examination, women were excluded if they were menstruating, because

menstrual blood would interfere with the laboratory tests. Unmarried girls were barred to speculum examination, because it was not deemed culturally appropriate for them.

The collected specimens were transported to Microbiology Laboratory, Siddhanath Science Campus, Kanchanpur and specimen processing was done as per standard Microbiological operating procedure for HIV testing and others STIs investigation.

The data generated from interview and lab investigation were entered into Statistical Package for Social Sciences 11.5 version and then analyzed to get the required information related to objectives of the study.

RESULTS

The study was carried out on 208 migrant, wives of migrant and others (belongs to migrant family) visiting to ART centre of Mahakali Zonal Hospital, Nepal National Social Welfare Association VCT center, HIV/AIDS camp at Jhalari VDC and Dodhara VDC (Table 1).

Table 1. Age and sex distribution of patients tested for HIV and others STIs

Age group	Male	Female	Total
0-14 years	1(2.5%)	2 (1.2%)	3(1.5%)
15-29 years	14(35.0%)	86(51.2%)	100(48%)
30-49 years	22(55.0%)	77(45.8%)	99(47.5%)
≥50 years	3(7.5%)	3(1.8%)	6(3%)
Total	40 (100%)	168(100%)	208(100%)

Out of 208 patients 40 (19%) were male and 168 (81%) were female. The highest numbers of population were in age group 15-29 years (48%). Similar to 30-49 yrs (47.5%). Followed by age group 30-49 years (47.5%). the average age were 30 years.

Table 2. Knowledge on HIV transmission (N= 208)

Mode of transmission	Correct answer	Incorrect answer	Do not know
Sexual contact	80 %	18%	2%
Infected syringe	73%	22%	5%
Blood	70%	23(%)	6%
Mother to baby	60%	26%	14%
Mosquito	8%	35%	57%
Kissing	47%	29%	24%
Normal contact	62%	18%	20%

Eighty percent patients knew that AIDS could be transmitted through the sexual contact followed by other corrected response like infected syringe 73%, blood 70%, and mother to baby 60%, kissing 47% and mosquito bite 8% (Table 2).

Table 3. Sexual Behavior of Studied Population (N=208)

Sexual behavior		Frequency
Use of Condom	Never use	104 (51%)
	Some times	47(23%)
	Always	53(26%)
Types of sexual partner	Friends	2(1%)
	Prostitute	43(21%)
	Others	10(5%)
No. of sexual partners	Only one	130(64%)
	2-4 partners	49(24%)
	> Four	25(12%)

Among 208 respondents, 3 were children and they did not have exposed to sex. Majority of 104 (51%) had never used condom. Fifty-three (26%) respondents always used condom and 47 (23%) did not use condom had visit to sex worker. A large number 43(21%) had prostitute as sexual partner. Two (1%) had sexual relationship with their friends and 10 (5%) had sexual relationship to others. Majority of 130(64%) were strict in single sexual partner. Forty-nine (24%) had 2 to 4 sexual partners and 24 (12%) had more than 4 sexual partners (Table 3).

Age group	Male	Female	Total
0-14 yrs	1(16.7%)	2(16.7%)	3(16.5%)
15-29 yrs	0(0)	3(25.0%)	3(16.5%)
30-49 yrs	4(66.6%)	7(58.4%)	11(61.5%)
≥50 yrs	1(16.7%)	0(0)	1(5.5%)
Total	6(100%)	12(100%)	18(100%)

Distribution of HIV sero-positive patients is shown in Table 4.

Types of STI	Positive cases
Syphilis : N=172	3(2%)
Gonorrhoea: N=104	0(0%)
Trichomonosis: N=104	10(10%)
Bacterial Vaginosis: N= 104	15(14%)
Candidiasis: N=99	23(23%)

Based on clinical finding 40 (19%) had different STI. The prevalence of vaginal candidiasis, bacterial vaginosis, trichomonosis and Syphilis was 23%, 14% 10%, 2% respectively, but none of cases was positive for gonorrhoea (Table 5).

HIV Status	STI Status			Chi-square value
	Positive	Negative	Total	
Positive	12	6	18	30.9 (P< 0.01)
Negative	26	164	190	
Total	38	170	208	

As the Chi-square value obtained by cross tabulating with HIV/ other STI co-infected patients is 30.9 (P< 0.01). The HIV acquiring is highly associated with STIs (Table 6).

DISCUSSION

The high proportions of migrants were 15-29 years age group and most of them were female. In contrast to our study findings, a study done on

Eastern Nepal; the average age of migrant workers were 22.5 years and majority of them were between 15-35 years of age.⁹ The large proportion of HIV positive population was 30-49 years in the study, the age group with the highest population was wives of migrant. This data suggest that most of the people of this region leave their home town to earn money as migrant laborers at this age. Male migrant may engage of having sexual relationship with multiple partners and prostitutes due to loneliness need for intimacy and sex. There they acquire HIV infection and transmit the infection to their innocent homemakers during their short visit to home. Other studies also documented that the people of this age group are more susceptibility to HIV infection. Data of National centre for AIDS and STD control (NCASC) shows that 77.6 % HIV positive people are in the age group 21-30.¹⁰ The large proportion of HIV positive population was 26- 35 years, the age group with the highest population was migrants. This indicates that though age is an important determinant of HIV infection, migration women is also crucial factor in the spread of HIV in all age groups.¹¹

This study found that migrant labor had good knowledge on HIV/AIDS. But a significant number had the misconception that one could contract HIV through mosquito bites and kissing. Almost 70% respondents fall under the categories of good knowledge, while only 15% respondents were ranked as poor knowledge. This finding was supported by study awareness and HIV risk behaviours among migrant workers in relation to HIV/AIDS- a study from eastern Nepal, in which also migrants were aware regarding the transmission of HIV/AIDS viz; unprotected sex (92.7%), unscreened blood (80.5%), infected syringe (75.6%). The commonest misconceptions were found to be; through mosquito bite (53.5%) and through normal contact were nearly 30%.¹²

Sexual behavior of patients increases the risk of HIV transmission. Highest proportion (51%) were never used condom, 47% used condoms but they ignored to use condom, when they had drunk

alcohol. which might made them transmission and acquiring of HIV. A large number 43(21%) had prostitute as sexual partner. Most of the male migrant frequently visited prostitute when they were in India. The practices of prostitute sex among male migrant was also interesting finding. They revealed one secret that they generally had unprotected sex with prostitute because they were alone (wife at home) for a long time in India and feel thought their wife and children then drunk alcohol visited prostitute for sexual satisfaction. One participant made a statement "Male migrant in India generally to gathered and drunk alcohol, then planed to visit prostitute and may had group sex." Female were strict within the single sex partner but few cases were involving in commercial sexual worker because they had already lost their husband.

Among HIV/AIDS other STIs co-infected patients, both male and female were found in equally infected. HIV/STI co- infected patients belong to above 30 years. Migrants aged 30 years or younger were greater risk of HIV infection than those who were older. Another study showed that HIV infected migrant women were significantly older (mean=34.4 years).

Table 4 and 6 presents, gender had no relation to acquiring HIV/ STIs ($p=0.105$). As the Chi-square value obtained by cross tabulating with HIV/ other STI co-infected patients is 30.9 ($P< 0.01$). The HIV acquiring is highly associated with STIs. STD syndromes were highly significant relation to acquiring HIV Infection. STIS increases the risk of acquiring HIV infection, HIV can easily pass through breaks in the skin caused by genital ulcers or it is transmitted in the same way as other STIs.¹¹

CONCLUSION

The result shows that migrant people are at high risk of infection. HIV infection was higher among aged 31 years, at this age people went to India for

earning and import HIV infection to their wife during their short visit to home. The HIV infection was significantly associated to curable STDs. Migrant people still confused about transmission of HIV/AIDS. The prevalence of HIV and curable STDs are alarmingly high and emphasize the urgent need for interventions aimed at combating the spread of HIV and STDs among women in general and migrant or wives of migrant in particular. Such interventions should address social and economic factors promoting the spread of HIV. There is an urgent need for provision of services to treat STDs, VCT services will be strengthened and strictly launched to migrant and their wives. Education and empowerment programmes are need that will promote condom use among migrants. In the longer term, steps must be taken to address the social and economic pressures that migrant face.

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