

# STUDY ON RISK TAKING BEHAVIOR TO HIV/AIDS AMONG INJECTING DRUG USER'S IN A EASTER REGION OF NEPAL

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## Abstract

**Introduction:** Drug abuse is the Universal Problem and Nepal is not the exception. Different study and report have reported high prevalence of HIV/AIDS among the IDUs in Nepal. According to the estimated data, there are eighty thousands drug addicts in Nepal and 50 % of them inject drugs through syringe. In Morang district, there are 1316 reported IDUs and 5000 to 7000 estimated IDUs.

**Objectives:** To assess the risk taking behavior among IDUs with respect to needle syringe exchange and unprotected sex.

**Methodology:** Cross sectional study design was applied to study the risk taking behavior among IDUs users in eastern region of Nepal. A non-probability, snowballing sampling technique was adopted. SPSS and Epi-Info was used to analyze the data of the study.

**Results:** Majority of injecting drug users in eastern region were from the age group 21-30 years (62.7 %), unmarried (64.9 %) and living in nuclear family (80 %). Despite of the fact that most of the IDUs were unmarried most of them were sexually active (72.7 %). The study revealed that condom use during sexual intercourse was high (87.5 %) the consistent and regular use was low (57.5%). Sharing of syringe and reuse of needle was high among the IDUs i.e. 40 % of the respondent. In general the study had revealed that the harm reduction approaches among IDUs were low.

**Conclusion:** The findings suggest that the majority of injecting drug users in eastern region were from the age group 21-30 years, unmarried and living in nuclear family. The study had further highlight that unsafe sex, sharing of syringe and needle and improper cleaning of needle and syringes before sharing is indication of unsafe behavior practices by IDUs. Finally, the study highlighted statistically significant relationship between HIV/AIDS knowledge and uses of condom during sexual intercourse and high rate of syringe sharing among married respondents.

**Key Words:** IDUs, Unsafe, HIV & AIDS, Needle/Syringe, Risk Behavior, Drugs etc.

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## INTRODUCTION

Drug abuse is the universal problem affecting all of the developed and developing countries. Since 1980, there has been a major changes in trends and patterns of drug use globally, i.e. global increase in the population, types of use

and way of taking drugs. The injecting drug has become a major transmission route of Human Immunodeficiency Virus (HIV) and Acquired Immune Deficiency Syndrome (AIDS) <sup>1</sup>. There is no country in the world without the problem of drug abuse. The drug talking route has been changed dramatically.

Parental route is replacing the traditional way of talking drug in Nepal as in the rest of the world. Later the drug use problem has been intensified by the additional hazard of condition such as Sexually Transmitted Diseases (STD) and HIV/AIDS <sup>1</sup>.

World drug report 2008 estimates 200 million (3 % of the global population) & 5 % of the population aged 15-64 years are drug addicts <sup>2</sup>. Worldwide, 11 % of AIDS cases are estimated to be due to drug injecting with dirty needles- particularly heroin addicts. By 2008, in injection of illicit drug has been reported from 121 countries and by 2006 HIV infection among drug injectors had been reported in 82 different countries worldwide <sup>2</sup>. According to the estimated data, there are eighty thousands drug addicts in Nepal and 50 % of them inject drugs through syringe <sup>3</sup>. In Morang district, there are 1316 reported IDUs and 5000 to 7000 estimated IDUs <sup>4</sup>. The estimated numbers of drug users in Nepal reflect an steep increased i.e. 1987 cases in 1978, 25000 cases in 2005, 60000 cases in 2007 and 80000 cases in 2009 <sup>5</sup>.

Transmission of HIV among IDUs occurs primarily through behavior like needle/syringe exchange/sharing and practices of unsafe sex. Frequency and magnitude of exposure to infected blood increases the risk of HIV transmission. The frequency of needle sharing, the number of partners with whom needles are shared, the probability that those partners are HIV- infected and the manner in which sharing occurs, all influence HIV risk.

**OBJECTIVES:** To assess the risk talking behavior among IDUs with respect to needle syringe exchange and unprotected sex.

**METHODOLOGY:** Cross sectional study design was applied to study the risk talking behavior among IDUs users in eastern region of Nepal during the period of Sept, 2009 to Feb, 2010. A non-probability, snowball sampling technique was adopted where the

firstcontact points being the key workers. The sample were approached from a variety of settings, like drop in center, local tea shops, bhatti (small alcohol shop), corner of quite areas, under the chautara, back of the street and interviewees homes. Considering a total of 1316 reported cases in Morang district (transit), 34.4 % HIV prevalence among IDUs and 8 % desired precision and 95 % confidence interval a total of 135 IDUs were selected as total sample size.

The collected data were edited; coded and categorized, then master chart was prepared in the electronic data sheet in Microsoft Excel 2007. Then the excel data file was transferred to SPSS 11.5 version and Epi-Info for analysis. Microsoft word 2007 was used for tabulation and graphical representation of the data.

## Results

The majority of the respondents were male i.e. 97.8 % and the majority (62.7 %) were from the age group 21-30 years. Only one in ten of the respondents were illiterate (10.4 %) and 58.4 % of the respondents were with secondary or higher education.

| Characteristics       | Frequency (n=135) | Percentage |
|-----------------------|-------------------|------------|
| <b>Sex</b>            |                   |            |
| Male                  | 132               | 97.8       |
| Female                | 3                 | 2.2        |
| <b>Age</b>            |                   |            |
| 11-20 years           | 15                | 10.4       |
| 21-30 years           | 84                | 62.7       |
| 31-40 years           | 35                | 26.1       |
| 40+ years             | 1                 | 0.7        |
| <b>Education</b>      |                   |            |
| Illiterate            | 8                 | 5.9        |
| Literate              | 6                 | 4.4        |
| Primary               | 42                | 31.1       |
| Secondary and above   | 79                | 58.4       |
| <b>Marital Status</b> |                   |            |
| Single                | 87                | 64.9       |
| Married               | 39                | 29.1       |
| Divorced              | 9                 | 6          |

*Table 1 : Socio demographic characteristics of respondents*

Similarly the table 1 revealed that the majority of the respondents were single or unmarried followed by 29.1 % married and 6 % being divorced.

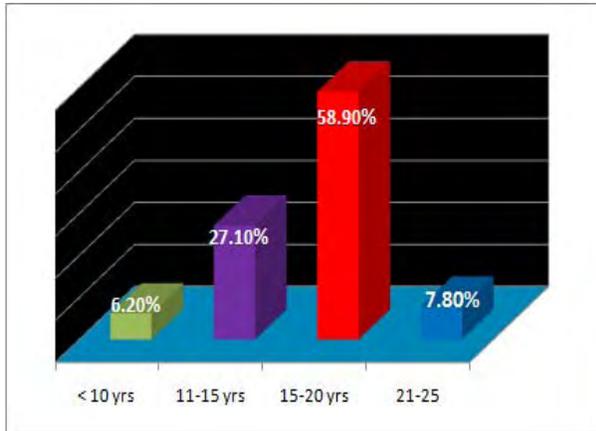


Figure 1 Age at first start of drugs

The figure 1 revealed that the most of the respondents were started talking drug at teenage i.e. 59 % of them started talking drug at the age of 15-20 years. Very surprisingly, 6.2 % of the respondents were started talking drugs as early as less than 10 years of age. In response to another question asked regarding the first contact with drug almost all (93.8 %) said those friends are the first contact. Similarly the study revealed that more than 50 % of the IDUs first started talking drug as curiosity and almost 25 % as peer pressure to take drug.

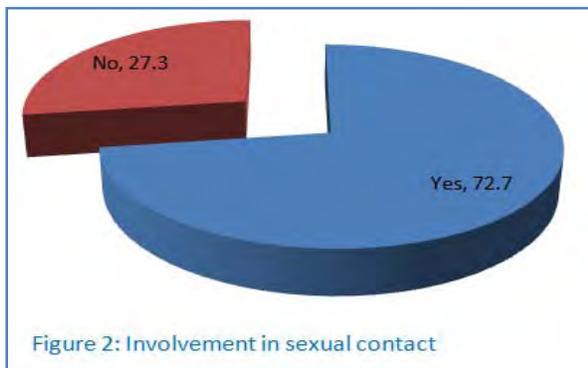


Figure 2: Involvement in sexual contact

The figure 2 illustrates the sexual behavior of the respondents. It is clear that most of the respondents (72.7 %) were involved in sexual contact. Among them 56.5 % were sometime

involved in sex where as 43.5 % of the respondent were regularly involved in sex.

In response to the question asked on the frequency of sexual contact during last seven days majority of the respondents (63.4 %) had made sexual contact 1-5 times. Similarly 16.9 %, 8.5 %, 7.0 % and 4.2 % replied more than 20 times, 6-10 times, 11-15 times and 15-20 times respectively during the last week. Ever condom use during sexual contact was found to be among 87.5 % of respondent, however and consistence and regular use of condom was only in 57.5 % of respondent.

Almost one fifth (21.1 %) of the respondent were reported to share syringe while talking drug. Similarly almost 19 % of the respondents were reusing the used needle while taking drugs. Unexpectedly, almost 40 % of the respondents were found reusing needle and syringe while talking drug.

In response to the question asked on why they were sharing syringe, almost 17 % of respondents replied due to lack of time and money. Similarly, the reason behind the reuse of needle was to prevent diseases among 18.5 % of the respondents. Among those who share/reuse syringe and needle 86.8 % of the respondent found cleaning them before sharing/reuse. Notable, only 38.5 % of them who clean the syringe and needle before reuse/sharing found to be used perfect

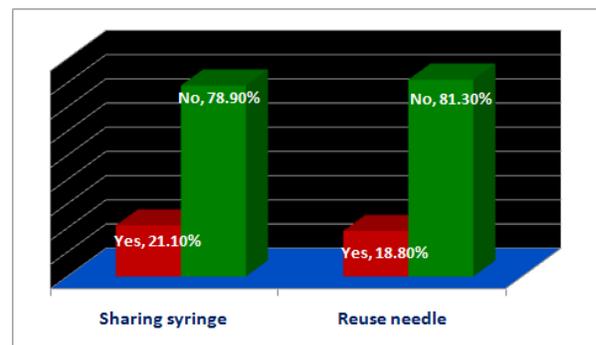


Figure 3: Practice of sharing syringe & needle

cleaning agents (either bleaching or spirit).

The table 2 revealed the association between risk behavior and knowledge of HIV/AIDS among the respondents. It is clear that the

knowledge of HIV/AIDS was higher (78.3 %) among those who share syringe which is statistically insignificant ( $p=0.453$ ).

Similarly the knowledge of HIV/AIDS was

| RISK BEHAVIOR             | KNOWLEDGE OF HIV/AIDS (%) | TOTAL | P-VALUE      |
|---------------------------|---------------------------|-------|--------------|
| <b>Sharing of Syringe</b> |                           |       |              |
| No                        | 21.7                      | 28    | <b>0.453</b> |
| Yes                       | 78.3                      | 107   |              |
| <b>Use of condom</b>      |                           |       |              |
| No                        | 4.9                       | 14    | <b>0.01</b>  |
| Yes                       | 95.1                      | 121   |              |
| <b>Sexual contact</b>     |                           |       |              |
| No                        | 29.2                      | 15    | <b>0.457</b> |
| Yes                       | 70.8                      | 120   |              |

**Table 2: Association between risk behavior and knowledge of HIV/AIDS**

high (95 %) among the respondent who use condom during sex and the result is statistically significant ( $p= 0.01$ ). Similarly table 3 revealed that neither family stress nor peer pressure is strongly associated with sharing of syringe. Notable the sharing of syringe was high (70.8%) among those respondent who are married and the association seems statistically significant with p value 0.025.

| CONDITION             | SHARE SYRINGE % | TOTAL | P-VALUE      |
|-----------------------|-----------------|-------|--------------|
| <b>Family Stress</b>  |                 |       |              |
| No                    | 82.1            | 106   | <b>0.453</b> |
| Yes                   | 17.9            | 29    |              |
| <b>Peer pressure</b>  |                 |       |              |
| No                    | 71.4            | 100   | <b>0.72</b>  |
| Yes                   | 28.6            | 35    |              |
| <b>Marital Status</b> |                 |       |              |
| Single                | 29.2            | 15    | <b>0.025</b> |
| Married               | 70.8            | 120   |              |
| Divorced              | 10.7            | 8     |              |

**Table 3: Association between family and social condition with risk behavior**

## Discussion

The study revealed that most of the IDUs in eastern region of Nepal are male and only 2.2 % of them were female, this might be due to socio-cultural setting in Nepal that the female IDUs are hidden in the community. Different study done in Nepal had revealed that there are almost 5 % of the IDUs were female. Similarly the high prevalence (62.7 %) of IDUs in the age group 21-30 years suggests that the problem of IDUs is in the economically active population in the country. The majorities of the respondent were literate and hence demand IDUs education in the formal curriculum to develop healthy lifestyle without drugs<sup>6</sup>.

The healthy family kinship and socio-cultural tie up in contest to Nepal had shown positive influence on developing safe behavior and practices among the adolescent and youth. This study had also found that the drug use was high in nuclear family (59.7%) and for unmarried (64.9 %) <sup>7</sup>.

A study done by NCASC (1997) showed that the 40.5 % of IDUs had their first sexual experience with FSWs. This study had also reflected that the 17.9 % of IDUs had sexual experience with FSWs .Similar to the above study, this study had revealed that 72.7 % of IDUs were sexually active and among them 43.5 % of the respondent do have regular sexual contact while 56.5 % of the respondent do have occasional sexual contact and most of the respondent had 1-5 times sexual contact within the last one week preceding the survey. In this study among those who were sexual active 87.5 % of the respondent had ever used condom during sexual intercourse, however regular use of condom among those sexually active IDUs was poor i.e. 57.5 % <sup>8,9</sup>.

Similarly this study revealed that 21.1 % of the respondents had shared syringe for taking drugs while 18.8 % of the respondents were reusing the used needle while talking drugs. The study done by NCASC in 2003 found 24 % of the IDUs in Pokhara reported sharing the used needles/syringe which is higher than finding of this study. This didn't rollout the needs of public health intervention on harm reduction. The reason behind sharing syringe/needle as identified by this study was lack of money (6.7 %), lack of time (10.4%) and unavailability (3.7 %) <sup>10,11</sup>.

A report of NCASC (2007) suggests that most of the IDUs clean needles/syringe before use was not satisfactory, uses of bleach and water was 30.7 %. Significant numbers of IDUs (37.5 %) were using their own methods i.e. saliva and urine as cleaning agents. Similar to the above finding this study had found that 31.1 % of the respondent who share and reuse syringe and needle uses bleaching while

majority of the respondent uses own method like hot water (10.4%) and urine (5.2%) etc<sup>12</sup>. The cross tabulation of knowledge of HIV/AIDS and the risk behavior to HIV/AIDS revealed that the knowledge of HIV/AIDS was high among those who share syringe (78.3 %), who are sexually active (70.8%) and who uses condom during sexual intercourse (95.1%). However, knowledge of HIV/AIDS and sharing of syringe and sexual contact was statistically insignificant and knowledge of HIV/AIDS and use of condom was statistically significant<sup>13</sup>. Similarly the associations of sharing of syringe with the condition of stress in the family and peer pressure were statistically insignificant. Notably the association of sharing of syringe and marital status was statistically significant ( $p=0.025$ ) with 70.8 % of the married respondents sharing syringe while talking drug<sup>14</sup>.

### Conclusion

Based on the objectives of the study, the derived finding suggest that the majority of injecting drug users in eastern region were from the age group 21-30 years, unmarried and living in nuclear family. Even though most of the respondents were literate the dropout rate from school after the lower secondary and secondary level was high. Despite of the fact that most of the IDUs were unmarried most of them were sexually active. Although the condom use during sexual intercourse was high the consistent and regular use was notable low. The study had further highlight that unsafe sex, sharing of syringe and needle and improper cleaning of needle and syringes before sharing is indication of unsafe behavior practices by

IDUs in eastern region of Nepal in spite of notably good awareness level. Furthermore, the study highlighted statistically significant relationship between HIV/AIDS knowledge and uses of condom during sexual intercourse and high rate of syringe sharing among married respondents.

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