



CHAPTER V

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 DISCUSSION

The study was conducted to assess the risk practices and their determinants in Delhi and in Manipur, India in January-February 2004. The primary data for the study was collected by using structured close-ended questionnaires through face-to-face interview conducted by trained interviewers. Altogether 200 respondents were interviewed, 100 respondents from each place of study. The respondents were selected through purposive sampling method from the respective NGO (Non-Government Organization) & DDC (Drug De-addiction Centre). The data collected was coded and analyzed by using SPSS for Windows 10. Chi-square test was used to determine the associations between risk practices & factors determining them with regard to place of study and between risk practices and other factors determining them. Independent Sample T-test was used to determine correlation between continuous variables like age, duration of drug injection and place of study. The results of the analyses were discussed under seven sections as follows:

- 5.1.1 Implementation of policy in Manipur and Delhi
- 5.1.2 Risk Practices of the IDUs and comparison by place of study
- 5.1.3 Knowledge regarding routes of transmission of HIV/AIDS and comparison by place of study

- 5.1.4 Attitude on AIDS patients and on prevention ways of HIV transmission and comparison by place of study
- 5.1.5 Comparison of NGOs in Manipur and Delhi
- 5.1.6 Factors determining the risk practices of Injecting Drug Users
- 5.1.7 Limitations of using non-random sampling method

5.1.1 Implementation of Policy in Manipur and Delhi

In Manipur, the HIV/AIDS Policy was formulated and passed 6 years earlier than in Delhi (National) which follows the guidelines of the National HIV/AIDS Control Programme and also follow the principles behind the National HIV/AIDS Prevention and Control Policy, which binds for all the states that has no HIV/AIDS policy of their own. The HIV/AIDS policy in Manipur, in context to IDUs, is based on a harm reduction measures to tackle the rapid spread of HIV transmission among the IDUs. The policy was being implemented under RIAC Project based on harm reduction in a state wise level since October 1999 till present date that covers all the 9 districts in Manipur and is being implemented by 23 NGOs that covers 18,0000 IDUs out of estimated 18,000-20,000 IDUs in the state. In Delhi, there is no intervention program based on harm reduction for IDUs from the government sector. Only 1 NGO cover a handful of IDUs in Delhi out of estimated 45,000 IDUs with external funding. The NGO strives on limited resources and receive no such technical and financial support from the Delhi State AIDS Control Society or NACO. Thus, coverage of IDUs is very inadequate and services rendered are comparatively poorer in Delhi.

5.1.2 Risk Practices of Injecting Drug Users

The needle & syringe practice among the IDUs is one of the potential roots of transmission of HIV infection among the injecting drug users. The Needle Syringe Exchange Programme, which is the main component under Harm Reduction Programme, was considered as the most effective tools in reducing the frequency as well as volume of needle sharing. The reduction in sharing practices would minimize the spread of HIV infection among the injecting drug users. The prevalence of sharing needles & syringes among IDUs was 28% in Manipur and 45% in Delhi, which was statistically significant ($p=0.013$). This finding was generally consistent with the rate of needle sharing among IDUs in Manipur (30%) and in Delhi (50%) according to a study conducted in 2002 as part of the BSS (Behavioral Surveillance Survey) in some cities in India (NACO, BSS-II 2002). In Manipur, the Rapid Intervention and Care Project (RIAC), which was based on the principle of harm, reduction along with care components was launched in November 1998 by MACS (Manipur State AIDS Control Society) and implemented from 1999 to the present, through NGOs working on HIV prevention among the IDUs. The NSEP, of the main component of RIAC Project was introduced with funding from National AIDS Control Organization (NACO), Government of India and since the inception of RIAC by the partners NGOs, by the end of February 2004, the HIV prevalence rate among injecting drug users in Manipur has shown a decline from 80.7% in 1997 to 30.7 in 2004. The RIAC partners NGO received full financial and technical assistance from MACS, the authority for prevention and control of HIV/AIDS in Manipur. In Delhi, although the National Policy endorsed Harm Reduction as the most effective in tackling HIV prevention among IDUs, the sole NGO (SHARAN) have been implementing it through foreign

funding with no such assistance from National AIDS Control Society (NACO), Delhi. Majority of them who shared needles and syringes (N&S) did so occasionally in both places. The percentage of respondents who injected drugs once in a week was 6% and 46% of IDUs injected drug once or twice in a day. This finding was at par with the previous study for evaluation of RIAC implementing NGOs in Manipur that reported that 6% of IDUs injected drugs at least once in week, 40% of them injected once in a day (ORG Centre for Social Research Lmt. 2002). There was no significant difference between the frequencies of injecting drug between the two places. Among those who shared N&S, there was no significant association between the two places in relation to frequency of sharing and practice of cleaning N&S. However, there was appreciable significant association between the frequencies of cleaning N&S with place of study ($X^2= 6.096$, $p=0.047$) where 76% of study sample in Manipur cleaned their N&S every time they inject drugs. In a previous study, in Manipur 34.8% of IDUs cleaned N&S every time in the past month of interview while in Delhi, 44.4% of them cleaned N&S in the last 1 month (NACO BSS Part II 2002). The frequency of cleaning needles & syringes was treated as an important indicator to judge effectiveness of the Bleach & Teach Programme under the RIAC Project. In Manipur, majority (77.8%) of them used bleach as a method of disinfectant and this was highly significant as compared to IDUs in Delhi ($X^2= 27.112$, $p=0.000$). Bleach (sodium Hypo chloride 5.25% diluted 1:10) is an effective disinfectant for IDUs which was also known as household beach was provided free of cost under RAIC, and is the best disinfectant for sterilizing contaminated needles & syringes. It was found that the mean duration of injecting drug was 36.19 months in Delhi while in Manipur; mean duration of injection was 64.81 months. The duration of injection ≥ 60 months was higher in Manipur (43%) than in

Delhi (19%), which was statistically significant at $p < 0.01$. In 2002 as per a previous study, 33.9% of IDUs injected drugs for 61+ months in Manipur while in Delhi, 21.5% of them did so (NACO, BSS Part II 2002). Majority of IDUs in Manipur were of younger age and most of them had been injecting drug for at least 5 years. Majority (85%) of IDUs used heroin not in combination with cocaine in Manipur while in Delhi (97%) of them used buprenorphine as the drug of injection. The widespread use of heroin in Manipur was probably due to the fact that Manipur is in close proximity to the “Golden Triangle” where cheap and purest form of heroin (known as No.4 locally) was available. In Delhi, buprenorphine was most widely used drug for injection. The NGO (SHARAN) was undergoing drug substitution trial in late 1990s till 2002 among the IDUs that had resulted in appearance of buprenorphine in the market in a cheap rate and due to the fact that buprenorphine was used in government’s DDCs as a drug for detoxification (SHARAN 2001). This might had resulted in increased use of buprenorphine as drug for injection. The IDUs crushed the oral drug buprenorphine and diluted it with water and injected it.

In Manipur, the respondents were of younger age group and over half of them had ever experienced sex. The use of condom in the last 6 months of the study was found higher in Manipur than in Delhi with $X^2 = 4.393$, $p = 0.038$. Condom promotion is also one of the components of Harm Reduction Programme, and condoms were distributed for free in the NGOs under study both in Manipur and in Delhi. In Manipur, majority (86.5%) of those who ever had sex in the last 6 months had only 1-2 sex partners while 50% of respondents in Delhi had 1-2 sex partners. The other 50% had sexual partners ranging from ≥ 3 respectively. The respondents in Delhi lived mostly in

slum areas or in public places and majority of them lived away from their families. They were mostly single or separated, and were found more indulged in changing their sex partners. There was no appreciable significant association between sex with CSWs and place of study. However, there was significant association between frequency of condom use with CSWs and place of study with $X^2=9.427$, $p=0.009$. In Manipur, 50% of those who had sex with CSW's were found to use condom consistently and this finding was even higher than those conducted in 2002 (NACO, BSS-II 2002), where 34.3% of IDUs used condom consistently with CSWs. The finding in this study reflected that condom use was common among IDUs when they visited CSWs but IDUs who used them consistently and correctly in all kinds of sex was still low in both Manipur and Delhi.

5.1.3 Knowledge Regarding Routes of Hiv Transmission

The knowledge on the routes of HIV transmission was found quite high in both places. All the IDUs in Manipur were aware and had ever heard of HIV/AIDS. This holds true to other previous studies (NACO, BSS-II 2002; ORG Centre for Social Research Lmt.2002). The knowledge that HIV is a curable disease was found significant between the two places of study where 95% of them in Manipur answered correctly. This finding was higher than previous KAP study in IDUs in Manipur where 63.5% answered it correctly (VHAI & MVHA 1992). It was also reported that 89% of IDUs answered it correctly as per study conducted in Manipur in 2002 (ORG Centre for Social Research Lmt. 2002). The knowledge that HIV could be transmitted from infected mother to unborn baby was significant with place of study with $X^2=10.450$, $p=0.001$ where 97% of IDUs answered correctly. Furthermore, this finding was higher

than a previous study in which 89.1% answered it correctly (NACO, BSS-II 2002) and another study where 70% of IDUs knew about that HIV could be transmitted from infected mother to unborn baby (ORG Centre for Social Research Lmt. 2002). Overall the level of knowledge regarding the routes of HIV transmission was significant by place of study and 92% of IDUs in Manipur had high level of knowledge regarding the routes of HIV transmission. The result of this study had showed that since the implementation of RIAC Project in 1999, the knowledge on certain aspects of HIV infection has tremendously increased in Manipur.

5.1.4 Attitude Regarding Prevention of Hiv Transmission

The attitude of IDUs towards prevention of HIV infection has been reflected by their increased high level of knowledge on routes of HIV transmission in the study. Although, the IEC (information, Education and Communication) component as part of the awareness program does have a tremendous effect on the knowledge regarding HIV/AIDS, the individual beliefs and attitude does differ based on culture & tradition reflecting the mentality of the person. The level of attitude regarding the prevention of HIV infection was significant by place of study. In Manipur, 92% of IDUs had high level of positive attitude as compared to 81% of them in Delhi. In individual item on attitude, the attitude that AIDS patient should be isolated from community (negative statement) was significant by place of study with $X^2=19.705$, $p=0.000$ where 89% in Manipur had positive attitude. In a study conducted in 1992 in Manipur, 33.5% of IDUs believed that HIV infected AIDS cases should be totally isolated and only 28.8% expressed the need for use of condom very time while having sex with strangers ((VHAI & MVHA 1992).

5.1.5 Comparison of Ngo in Delhi and Manipur

There was significant association between sharing of needles & syringes and the NGOs in Manipur and Delhi. Regarding the cleaning of needles & syringes by bleach, there was strong significant by site of study. The five NGOs in Manipur were implementing RIAC Project with full technical and financial support from the MACS. The result of the finding showed that the NGO in Manipur had been more effective in regard to NSEP and Bleach and Teach Programme, as shown by the higher proportion of IDUs who didn't share needles & syringes and among those who did share, majority of them (77.81%) of them disinfected their needles & syringes with bleach. In sexual practice, there was significant association between use of condom in the last 6 months of interview and frequency of condom use with CSWs by site of study. Condom promotion, one of the components of Harm Reduction, had better impact on IDUs in NGOs in Manipur as compared to NGO in Delhi.

Regarding, utilization of health & drug treatment services, NGOs in Manipur fared better in regard to treatment that was ever received related to drug use showing significant association between NGO in Manipur and NGO (Delhi). However, the NGO in Delhi had involved more in NSEP than compared to NGOs in Manipur that showed significant association with $X^2=12.64$, $p<0.01$. Besides these, there was significant association in currently participation in treatment related to drug use by site of study.

5.1.6 Factors Determining the Risk Practices in Injecting Drug Users

There were certain associations between risk practices and knowledge, attitudes and socio-demographic/ peer & family factors among IDUs in Manipur and Delhi. There were significant association between certain risk practices and level of knowledge and high positive attitude. The level of knowledge was positively associated with low risk practice of injecting drug <3 times/day. High positive attitude was associated with non-sharing of needles and syringes among the IDUs. Similarly, IDUs with high level of knowledge and high positive attitude cleaned their needles & syringes with bleach. IDUs with positive attitude were found to have few sexual partners <3 in the last 6 months. IDUs who had ever suffered from STD were found to have low level of knowledge on the routes of HIV transmission. In a previous study conducted among young IDUs of 242 in New Orleans, it was reported that family characteristics were associated with the extent to which young IDUs participate in high-risk practices like sharing syringes, back loading, etc. Almost half (49.6%) have indicated that they engaged in high-risk practices had been raised in families where they did not get along with parents (Morse V.E. 2002).

5.1.7 Limitation of Using Non-Random Sampling

Non-random sampling method, purposive and convenience sampling was used to recruit the respondents. This posed a strong limitation in the study in that, the result could not be generalized to the whole IDUs population in both places. The respondents in the study may not well represent the true IDUs population in these places. So, this could create bias in generalizing the result to all IDUs, considering this fact, the findings of the study should be interpreted cautiously.

5.2 CONCLUSION

The result of the study showed that the two places differed in socio-demographic characteristics like age, education, income, occupation, place of living and also in terms of family and peer factors like receiving care and support from family. Besides these, the two groups of respondents did have different level of knowledge & attitude on HIV infection as well as risk practices. The respondents in Delhi comprised of older groups as compared to Manipur. In both places, majority was single. Majority of respondents in Delhi were daily wage earners and were homeless unlike respondents in Manipur who lived with their families in permanent residence and majority were unemployed and were dependent on their families. The main reason for initiation into drug use was for enjoyment and fun in both places. The knowledge level was found much higher in Manipur, where 92% of them had high level of knowledge regarding HIV infection and routes of transmission while in Delhi, 64.6% of them had high level of knowledge.

Regarding the risk practices of the IDUs, overall the percentage of respondents indulging in risk practices were found higher in Delhi then in Manipur. The risk practices are categorized into three main types like injecting practices, the sexual practices of the IDUs. The respondents in Manipur indulged less in risky practices like sharing of N&S, non-cleaning of N&S with bleach, daily injection of >2 times/day, non-cleaning of N&S every time they shared N&S etc.

Regarding sexual practices, it was found that majority of respondents in Manipur had experienced sex at a younger age as compared to Delhi's respondents.

They had fewer sex partners in the last 6 months as compared to respondents in Delhi. Majority of them used condoms with CSWs and among those who used condoms; they used it consistently.

The utilization of drug treatment services was higher in Manipur than in Delhi and fewer respondents had ever suffered from STDs.

The result had shown that there was significant association between various risk practices by place of study. In Manipur, where there is a strong and supportive policy based on harm reduction and which had been carrying out under the RIAC (Rapid Intervention and Care Project), the IDUs generally indulged in less risky practices than the IDUs in Delhi. These observations suggest that the stronger policy in Manipur had a beneficial effect on risk practices. However, there were also some significant associations between certain risk practices and socio-demographic characteristics. Thus, interpretation of these results is not straightforward. Moreover, as non-random sampling was used in the study, there could well be bias in representing the whole IDUs population so this underscores that findings of the study need to be interpreted cautiously.

5.3 RECOMMENDATIONS

The above analytical cross sectional study to assess the risk practices and their determinants in Manipur and Delhi in the light of State AIDS Policy and National AIDS Policy suggested that the policy did play a beneficial role, as the risk practices were generally less prevalent in Manipur than in Delhi. Based on the findings, some of the recommendations to bring forth were given as follows:

- Strengthening the ongoing Harm Reduction Programme that is being implemented in Manipur and to a lesser degree in Delhi.
- Need for the Central Government to support and give financial and technical assistance to SHARAN, the only NGO working on prevention of HIV infection among IDUs. The GOI, NACO should provide the NGO (SHARAN) the logistic and technical support for their effective collaboration as equal partners in the challenging job of tackling HIV prevention among IDUs.
- Need to strengthen the condom promotion program in Delhi that would minimize the sexual transmission of HIV infection. More respondents in Delhi suffered from STDs and use of condom was less with CSWs. The counseling center in NGOs both in Manipur and Delhi can serve to educate people in proper use of condoms and their distribution.
- Strengthening of drug treatment and Rehabilitation Services in Manipur as well as in Delhi. Drug detoxification and drug substitution component of Harm Reduction needs to be implemented in a larger scale in Manipur.

- Further studies of this kind should employ random sampling to the maximum feasible extent so that the result of the findings could be well generalized to the whole IDUs population.
- Further study could use a higher statistical analysis to assess the relationships of the risk practices with location of study as a substitute for strong and weak HIV/AIDS policy by controlling the various confounding factors. Multivariate data analysis would assist in interpreting findings in studies of this kind.