

CHAPTER III



RESEARCH METHODOLOGY

3.1 RESEARCH DESIGN

An analytical cross-sectional study was used in this study to assess the risk practices and their determinants among the injecting drug users in Manipur and Delhi. Documentary evidence was used to describe the HIV/AIDS policy in Manipur and in Delhi in the context of intervention programmes for prevention of HIV infection in IDUs.

3.2 TARGET POPULATION

The target population was the Injecting Drug Users (IDUs) in the urban areas in Manipur and Delhi who had been injecting an illegal or non-prescribed drug for the past three months. The estimated target population of IDUs in urban area in Manipur was 6000 and in Delhi, it was 25,000-30,000 injecting drug users.

3.3 STUDY POPULATION

The sample population in Delhi comprised of Injecting Drug Users who had been enrolled under SHARAN (Society for Service to Urban Poverty), the only one NGO working on the intervention Programmes for prevention of HIV transmission among the IDUs in urban areas of Delhi and from the two DDC (Drug De-addiction

Centre). The sample population in Manipur comprised of Injecting Drug Users who had been enrolled under the five NGOs in urban areas of Manipur. These five NGOs covered almost 90% of the estimated IDUs population in urban area.

3.4 SAMPLE SIZE

The required number of sample size was taken by using the Epi-Info software program for cross-sectional study to estimate the sample size. The “exposed” was taken as Manipur, with “exposure” to a strong policy on HIV/AIDS, and “unexposed” was taken as Delhi with a weak policy on HIV/AIDS. The same sample size of $n=68$ in each place of study was obtained as per the Epi-Info software taking Confidence Interval (CI) as 95% and power $(1-\beta) = 80\%$, the rate of sharing of needle & syringes among IDUs was considered as the “disease prevalence” or “P” in both exposed and unexposed group. The rate of sharing needle & syringe in Delhi (P_1) was taken as 30% and in Manipur, the rate of sharing needles & syringes (P_2) was taken as 55%, to estimate the sample size for the study.

The formula for sample size was given by:

$$n' = \frac{(C_{\alpha/2} \sqrt{2P\bar{Q}} - C_{1-\beta} \sqrt{P_1Q_1 + P_2Q_2})^2}{(P_2 - P_1)^2}$$

(Fleiss, 1981. pp.35-41)

where n' = the required sample size in each place, before continuity correction

Confidence of 95%; $C_{\alpha/2} = 1.96$

Power = 80% = $1 - \beta = 0.80$

$C_{1-\beta} = -0.842$

P_1 = rate of sharing needles & syringes in Delhi = 55% (NACO BSS Part II 2002)

P_2 = rate of sharing needles & syringes in Manipur = 30% (NACO BSS Part II 2002)

$$\bar{P} = \text{mean of } P_1 + P_2 = \frac{0.55 + 0.30}{2} = 0.425$$

$$\bar{Q} = 1 - \bar{P}$$

$$Q_1 = 1 - P_1$$

$$Q_2 = 1 - P_2$$

Applying continuity correction:

$$n = n' + \frac{2}{|P_2 - P_1|}$$

(Fleiss, 1981, pp. 42)

The n was 68.16 by formula and 68 by using Epi-Info Programme.

In this study, 100 subjects were selected in each location (total 200 subjects), in order to cover the possibility that the actual difference in prevalence of needle sharing would be smaller than estimated.

3.5 SAMPLE TECHNIQUE

In Delhi, the only NGO (SHARAN) was chosen for the study to recruit the study subjects and two DDCs out of the ten DDCs were selected by convenience sampling method. Purposive method was used to select one hundred subjects, seventy-four subjects from SHARAN and twenty-six subjects from the two DDCs, thirteen from each DDC. In SHARAN, there were an estimated of one thousand IDUs enrolled covering the IDUs from urban area in Delhi. In DDC, there were around 25-30 IDUs in each of them. In Manipur, the study subjects were chosen by purposive sampling method from each of the five NGOs, recruiting 20 subjects from each NGO.

3.6 INCLUSION CRITERIA

- 3.6.1 Respondents should be Injecting Drug Users who had been injecting drug for the last 3 months.
- 3.6.2 Respondents should be willing to participate in the study voluntarily
- 3.6.3 The respondents in both places should be from urban areas

3.7 EXCLUSION CRITERIA

- 3.7.1 IDUs who were hospitalized for some illnesses or disease
- 3.7.2 IDUs who are mentally disoriented and were under withdrawal symptoms

3.8 RESEARCH INSTRUMENT

For this study, face-to-face interview by trained interviewer using standard structured questionnaire format was conducted in both Manipur and Delhi. The questionnaire format consisted of six parts and all the questions were of close-ended types. Documentary evidence was used to describe the policy statements in Manipur and Delhi.

Part I: Socio-demographic characteristic

This part of the questionnaire consisted of questions on the socio-demographic characteristics of respondents like gender, age, marital status, education, income occupation etc. It consisted of 7 questions.

Part II: Family/Peer factor

This part consisted of 3 questions on family/peers factors like living with the family, support & care from his family and reasons for using drug.

Part III: Risk practices

It comprised of 19 questions on the risky practices and behaviors of respondent like duration of drug use, type of drug use, frequency of injection, sharing & cleaning of needles and syringes, frequency of sharing & cleaning of N&S, having multiple sex partners, use of condom with CSW's (Commercial Sex Workers), MSM's (Men having Sex with Men), frequency of condom use etc.

Part IV: Knowledge about HIV/AIDS

There were 6 questions on the knowledge regarding HIV/AIDS, basically relating to the various modes of transmission of HIV/AIDS

Part V: Attitude about HIV/AIDS

This part consisted of 4 questions that referred to the attitude towards AIDS patients, attitudes on various prevention ways of HIV transmission.

Part VI: Utilization of health/drug treatment services

This part dealt with the accessibility of health and drug treatment services received such as free treatment for STDs & other illnesses, participation in NSEP (Needle Syringe Exchange Programme), ever been treated for drug addiction, currently participating in drug treatment, types of the treatment received related to drug use etc. There were eight questions in this part.

3.9 MEASUREMENT SCALE

Nominal, ordinal and continuous scales were used in the study.

3.10 SCORING SCALE

3.10.1 Scoring System for Knowledge:

The scores were made to assess the level of knowledge, attitude and practices respectively. For knowledge, nominal scales was used with “yes,” “no” and “don’t know” type of response. For the right knowledge, one point was given and zero point for the wrong knowledge. The total correct scores were 5 and respondents getting 100% correct scores (5 out of 5) was labeled as having high level of knowledge. The score point from 1-4 out of 5 i.e 80% and below of the total questions was labeled as having low level of knowledge.

3.10.2 Scoring System for Attitude

There were four responses for assessing the attitudes, strongly agree, agree, disagree and strongly disagree. There were one negative statement and three positive statements on attitudes towards HIV/AIDS in general. For the positive statements, the responses “strongly agree” and “agree” were taken as the positive attitude while “strongly disagree” and “disagree” as the negative attitude. Similarly for the negative statement, responses “strongly disagree” and “disagree” were considered as the positive attitude while “strongly agree” and “disagree” as negative attitude. A score of 4 point was given for the right attitude of “strongly agree”; 3 point for “agree”; 2 point for “disagree” and 1 point for “strongly disagree”. Similarly, for the negative attitude, 4

point was given for “strongly disagree”; 3 point for “disagree”; 2 point for “agree” and 1 point for “strongly agree”. The total score was 16, and respondents getting 12-16 (75% and above of the questions on right attitudes) was taken as having high level of positive attitude and 7-11 (44-69% of the total questions on positive attitudes) as having low level of positive attitude.

3.11 CONTENT VALIDITY

Content validity of the questionnaire format was taken from one expert to check for the contents in the format and see for the feasibility of the study.

3.12 RELIABILITY

To check for the reliability, a pre-test was conducted among 20 respondents in Delhi. The Alpha Cronbach’s co-efficient of 0.78 was taken for the knowledge and attitudes respectively.

3.13 DATA COLLECTION AND PROCEDURES

The data was collected through face-to-face interview by the trained interviewer at the office premise and Drop-in-centre (DIC) of the NGOs & DDCs by using the structured questionnaire format. The questionnaire format was translated in hindi language for use in Delhi. Secondly, documentary evidence was used to describe the HIV/AIDS prevention and control policies in Manipur and Delhi in the context of injecting drug users. The method of collecting data was described as follows:

- 3.13.1 Permission to conduct the study was obtained from the head or director of the NGO and DDC before the study was conducted.
- 3.13.2 The training of the interviewers was conducted for one day in Delhi and Manipur at the premise of their respective office. Five interviewers conducted the data collection in Delhi and 8 interviewers in Manipur.
- 3.13.3 The questionnaire was translated in the local language that was used in the two places.
- 3.13.4 The questionnaire was read out during face-to-face interview by the trained interviewers.
- 3.13.5 The whole process of data collection had been monitored in each place till the interview was over
- 3.13.6 Preparation of the code after the end of the interview.

3.14 DATA ANALYSES

After rechecked, data was encoded and recoded and finally analyzed using SPSS Window 10. program for statistical process.

- Chi-square was used to describe the frequency and percentage of all the characteristics of respondents in Manipur and Delhi and also to determine the associations between the variables in relation to place of study, and secondly to determine the association among level of knowledge, attitude, socio-demographic characteristics and practices (as item wise).
- Independent sample t-test was used for continuous variables

3.15 ETHICAL CONSIDERATION

Voluntary participation of the respondents was sought after explaining the rationale of the study. A verbal consent was taken prior to the study in each place of study after the respondents were assured that their confidentiality would be safeguarded. Subsequently the trained interviewers in respective NGOs and DDCs conducted the interview.

3.16 LIMITATION OF THE STUDY

In this study, non random sampling method was used to assess the risk practices and their determinants of the study subjects in both the places of study as there was difficulty in accessibility of the study subjects. The DDCs were selected by convenience sampling and the study subjects were recruited by purposive sampling. The subjects were recruited from the urban areas, that had been covered by the NGOs and DDCs involved in this study, so they might not truly represent the whole IDUs population in both the places. Therefore there was possibility of bias that could limit interpretation of the findings of the study.

3.17 EXPECTED BENEFITS

This study will provide an assessment of the high-risk practices and factors influencing them both in Manipur and Delhi, India. The findings of the study will provide better understandings of the problems of injecting drug users to the public health professionals who are involved in planning the intervention programmes for HIV prevention, the Non-Government Organizations (NGOs) working on HIV/AIDS prevention among IDUs etc. The study will give an insight on the differences in the level of risk practices of IDUs in both the places with distinct HIV/AIDS policy based

on all the components of Harm Reduction, in Manipur where HIV/AIDS policy was framed and started implementing at state level from 1998 onwards through the various NGOs with full support from the State Government, while in Delhi although harm reduction was endorsed in HIV/AIDS policy in 2002, but still hasn't yet implemented at government level.