

Latashori Keithellakpam¹

Social Psychological Implications in the Context of HIV/AIDS among the Injecting Drug Users in Manipur²

Introduction

ACQUIRED Immuno Deficiency Syndrome (AIDS) has become one of the major public health threat globally. So far, all the estimates have made us to recognize that HIV/AIDS is an alarming growing epidemic in India. By 2000 A.D. about 5 million persons would be infected and AIDS cases would exceed 1 million in India (NACO, 1994). It is possible for people to avoid high risk behavior or to engage in low or safe behavior practicing condom use while engaging in potential risky sexual activities, to clean / bleach / sterilize needle and syringe before using/ sharing; otherwise to use disposable needle and syringe for injection and to receive only tested certified blood for blood transfusion. Therefore, to reduce the risk of HIV infection the only priority is the prevention of HIV infection. However, behavior change in the direction of prevention of HIV infection remains inconsistent among the intravenous drug users. In India, transmission of HIV through injecting drug use has been reported particularly from Manipur. The type of drug use for injection is mainly *heroin*, a refined product of opium and locally known as *number four*. Sharing of contaminated needles and syringes is one of the mode of HIV transmission in the state for more than a decade. Since the inception of HIV/AIDS among the injecting drug users in Manipur, various intervention programme and policy implication oriented research work have been undertaken. Information based on such research work are available. Hardly, an academic

¹Research scholar, UPS, Deonar, Mumbai 400 088.

²Paper adjudged as the best presented by a young scholar at the 22nd IASP Annual Conference at the University of Kalyani. West Bengal on March 14-18, 1999.

work with indepth information is available. The present work, therefore, attempted to furnish some information which is lacking. It has mainly attempted to examine the social psychological implications in the context of HIV/AIDS risk behavior involved persons.

Conceptual Framework

In view of the persistence of AIDS risk behavior, it is evident that research method or model for encouraging widespread behavior change must remain a priority for the behavioral science community and for the global fight against AIDS. To date there have been various attempts made by the behavioral scientist to formulate intervention to reduce sexual and injecting drug use related to AIDS risk behavior within various population. It has been reported that attempts to understand and prevent the spread of HIV/AIDS, however, have tended to rely heavily upon psychological models which place the burden of change on the individual. While model which focus on individual behavior change e.g. Health Belief Model has led to demonstrate risk reduction behavior and that many of those have reduced their risk behavior rather than eliminating it entirely. The AIDS Risk Reduction Model (ARRM) (Catania *et al.*, 1990) is one among the AIDS risk reduction model which incorporated social net work system both in terms of risk behavior and risk reduction. The conceptual framework of present paper is formulated on the basis of some of the concepts and indicators described in ARRM as well as understanding the nature of the problem in the study place. Further, it is attempted to explore the results which can be applicable in understanding social psychological attributes of the study population. The paper is primarily focussed and adopted in a hypothetical manner those variables which are available in the literature among the high risk population such as injecting male drug users.

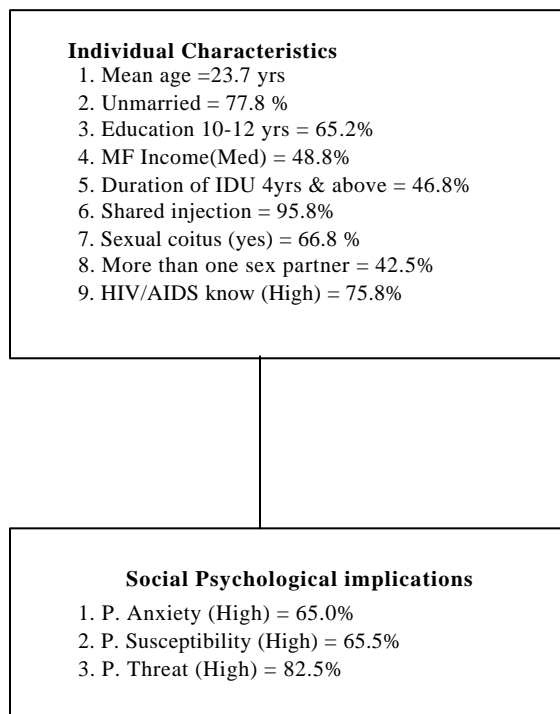
The study sample was 400 injecting male drug users persons from Imphal (Manipur). The primary data was collected primarily for individual research work in 1996. These respondents were those who sought treatment and stopped drug abuse since December, 1994 to January, 1996. The 400 respondents were interviewed by face to face interview method with help of structured questionnaire. The respondents were from six non government organizations (NGOs) which work against drug abuse with treatment facility and harm minimization related to HIV/AIDS to come out of drug injections/ abuse. To interview and discuss sensitive issues with the target population, one has to develop a good rapport and mentally prepare oneself to accept certain emotional breakdown of the respondents and handle professionally with them.

In order to examine the social psychological implications of HIV/AIDS, the characteristics which have been taken into consideration are individual background, drug use behavior pattern, sexual behavior, HIV/AIDS knowledge and perceived social psychological feeling such anxiety, susceptibility and threat about HIV/AIDS. In order

to measure low and high perceived anxiety, susceptibility and threat and HIV/AIDS knowledge, the responses were collected in three to four point scales method and later clubbed and coded into two category of low and high according to positive and negative value of the responses of the respondents interviewed.

As mentioned above, the paper has mainly attempted to examine perceived social psychological implications about HIV/AIDS among the injecting drug users in the state of Manipur. The highest proportion of responses were taken as shown below, to study the perceived social psychological implications about HIV/AIDS of the respondents.

SUMMARY RESULTS OF THE CONCEPTUAL FRAMEWORK



Individual Characteristics

Knowledge of the socio-economic and demographic characteristics is the basic requirement for understanding and exploring any area of investigation. Some of the basic background information taken into account are age, sex, marital status, education and family income. The mean age of respondents was 23.7 years. The minimum and maximum age of the male respondents were 15 to 39 years. The majority of them (77.8 per cent) were unmarried. The respondents who had completed education upto 10-12 standards were 65.2 per cent. 48.8 per cent of the respondents belonged to medium family income group of Rs. 2001-4000.

Injecting Drug Use Behavior and Sexual Behavior Pattern

In India, sharing of contaminated needle and syringe is considered to be fourth mode

of HIV transmission route (NACO,1993). Injecting drug for non-medical purposes has been a major problem and route for HIV transmission in Manipur. Most of injecting drug users (IDUs) are vulnerable to the risk of HIV infection due to unsafe practices and risky sexual behavior. This is most significant AIDS related behavior practiced by the injecting drug users (Britto, 1992). Findings on multiple heterosexual behavior of IDUs indicate that the risk of acquiring and transmission of HIV could be high among the IDUs in Manipur (Sarkar *et al.*, 1991; Latashori, 1994). It is not unlikely that a few of the injecting drug users got HIV through transfusion of infected blood or other modes of transmission (Nag, 1995).

The method of injecting drug raises a serious concern, as it opens up to the risk HIV infection to their sexual partners and offsprings. However, for understanding the problem of HIV among the injecting drug users in Manipur, the pattern of drug injection and sexual behavior information were collected.

The findings reveal that 46.8 percent of the respondents' duration of drug injection used was 4 years and above and 95.8 percent of them shared drug injection; 42.5 percent of them had more than one sexual partner irrespective of their marital status. And 75.8 percent of them have correct knowledge about HTV/AIDS.

In overall, respondents' involvement in high risk behavior can be seen clearly from the individual background characteristics. Thus it reflects that majority of respondents used the practice of injecting drug for more than 4 years and shared injecting equipments and all the respondents are literate.

Social Psychological Implications

Perceived anxiety, susceptibility and threat about HIV/AIDS are social psychological indicators which have been taken into account as main indicators for the present study. The AIDS Risk Reduction Model (ARRM) (Catania *et al.*, 1990) is one model which incorporated social net work system both in terms of risk behavior and risk reduction. The conceptual framework of present paper is formulated taking into consideration the indicators described in ARRM for exploring the social psychological status of high risk population. The definition of perceived anxiety, susceptibility and threat about HIV/ AIDS were not given in detail except as indicators to use in such type of study. So there may be certain loopholes in explanation of these concepts. Perceived anxiety refers to the extent of worries regarding HIV infection and effects of risk behaviour in overall. Perceived susceptibility refer to the degree to which an individual perceives and personalize the risk of acquiring or suffering from the disease. Perceived threat relate to perceptive feeling of fear or threat relating to the risk behavior involved or had experienced by the person.

Keeping the concepts of the present paper, perceived social psychological results show that majority of respondents live with high perceived anxiety, susceptibility and

threat about HIV/AIDS which are shown respectively as 65.0 percent, 65.5 percent and 82.5 percent out of 400 injecting drug users interviewed. The questions on perceived anxiety, susceptibility and threat were asked to the respondents directly by face to face interview relating to their recent and past risk behavior practices.

The present analysis gives an interesting result which is perhaps true in case of such chronic disease related issue. Since, HIV/AIDS is an incurable disease, the majority of respondents besides their low risk behavior practices at the time of survey and with high level of HIV/AIDS awareness, live with a persistent psychological fear related to HIV/AIDS disease.

Social Psychological Implications of HIV/AIDS Risk Behavior

This section presents the findings on the association between perceived anxiety, susceptibility and threat with their background and risk behavior practices in the context of HIV/AIDS risk behavior of the studied population.

Table 1 presents percentage distribution of respondents' socio- economic demographic status in different categories of perceived anxiety, susceptibility and threat about HIV/ AIDS. The bivariate analysis shows that age of the respondent does not show any significant relationship except a weak association with perceived susceptibility. Besides though not statistically significant, it is found that majority of the respondents live with high perceived anxiety, susceptibility and threat with the highest percentage score among the age group of 20-24 years compared to remaining age groups. Perhaps, results reveal quite appropriately related to such problematic practices involved by the respondents, since, the injecting drug users are normally adolescent or youth which are in productive age group of any community. The study also found these practices among the active population in the age group 15-39 years which do not deviate from the normal age group who are involved in such practices.

The marital status of respondents does not show any significant relationships. In general, it was thought that the married respondents could be more with perceived anxiety, susceptibility and threat about HIV/AIDS compared to unmarried respondents because married respondents are much more vulnerable and responsible to easy transmission of HIV infection to their spouse. But such presumption does not hold true in the present analysis.

Education is one of the important indicators for any studies conducted in social sciences and demography. Therefore, the present study being among youths, education of this selected population has been taken into account. Education with perceived anxiety susceptibility and threat about HIV/AIDS of the respondents shows significant relationship at 5 percent level. The study found that all the 400 respondents have received education. The majority of the respondents had completed 10th to 12th standard of education. Education always plays an important role in improvement of individuals' life. The

TABLE 1: PERCENTAGE DISTRIBUTION OF RESPONDENTS BY INDIVIDUAL CHARACTERISTICS WITH PERCEIVED ANXIETY, SUSCEPTIBILITY, AND THREAT ABOUT HIV/AIDS

Demographic Characteristics	Perceived Anxiety		χ^2	Perceived Susceptibility		χ^2	Perceived Threat		χ^2
	Low	High		Low	High		Low	High	
Age									
15-19	37.9	62.1	Chi value = 3.40 df = 3 sig = 0.333	44.8	55.2	Chi value = 6.67 df = 3 sig = 0.083	20.7	79.3	Chi value = 2.93 df = 3 sig = 0.401
20-24	29.3	70.7		29.3	70.7		13.3	86.7	
25-29	38.7	61.3		31.5	68.5		19.8	80.2	
30+	38.5	61.5		38.5	61.5		19.2	80.8	
Marital Status									
			Chi value = 0.04			Chi value = .107			Chi value = 2.94
Unmarried	34.7	65.3	df = 1	34.1	65.9	df = 1	15.8	84.2	df = 1
Married	36.0	64.0	sig = 0.830	36.0	64.0	sig = 0.743	23.6	76.4	sig = 0.861
Education									
Upto 10 yrs	33.0	67.0	Chi value = 6.39 df = 2 sig = 0.040*	33.5	66.5	Chi value = 5.83 df = 2 sig = 0.053*	22.2	77.8	Chi value = 6.45 df = 2 sig = 0.039*
upto 12 yrs	31.5	68.5		30.2	69.8		15.4	84.6	
12 yrs & above	48.5	51.5		47.0	53.0		9.1	90.9	
F. Income (monthly)									
Low	6.5	93.5	Chi value = 39.94 df = 2 sig = 0.000**	9.7	90.3	Chi value = 25.53 df = 2 sig = 0.000**	21.0	79.0	Chi value = 3.75 df = 2 sig = .153
Medium	33.2	66.7		33.8	66.2		20.0	80.0	
High	49.7	50.3		46.2	53.8		12.6	87.4	

* significant level up to 5 percent.

** significant level less than 1 percent.

present analysis shows significant relation of education to respondents' perceived social psychological fear about HIV/AIDS. Perhaps, education helps in increasing awareness about HIV/AIDS and psychological fear when related to themselves with their particular risk behavior involved in the past or present. Literate persons are much more worried because they can gather information about the disease much easier and faster compared to their counterparts which is also a cue for risk reduction behavioral change. The study can not comment anything at this stage about the risk behavior change of the respondents in respect of education. In connection to HIV infection people can be continuously worried even if they stopped the risk behavior due to non curability of the disease if they are well informed about HIV/AIDS. Education in overall has a significant influence on perceived anxiety, susceptibility and threat about HIV/AIDS among the respondents.

Similarly, family income of respondents is also found to be significantly related with perceived anxiety and susceptibility about HIV/AIDS. The respondents' family monthly income has been categorized into three categories i.e. low (upto Rs.2000), medium (Rs. 2001-4000) and high (Rs. 4001 & above). The bivariate analysis results do not show that respondents who are in better off category are likely to more conscious about the problem. It is convincing logically in a practical way compared to low socio-economic group of population. Due to the economic constraint, lower income group may neglect the problem. The less better off income group respondents probably are occupied much more with their basic survival necessities and can not be expected to be much health conscious as well as afford for treatment. But it can not be generalized from such a small study. The study sample itself has been drawn from private sector treatment centers which means that respondents were those who can afford the nominal charges of treatment centres. The study only shows that family income has a significant association with perceived anxiety and susceptibility about HIV/AIDS. In case of drug users, addicts often become local peddlers within community as means of survival, particularly among low socio-economic group of people; this has been documented in many studies conducted in both developed and developing countries. The low socio-economic group of drug users were considered as hard to reach population (e.g. slum/ street adolescents/ youths) within drug user population. It has been always a very difficult task for those who involve in intervention programmes at the grass root level to reach out.

Table 2 presents association between perceived anxiety about HIV/AIDS and the risk behavior pattern and HIV/AIDS knowledge of the respondents i.e. injecting drug use behavior and sexual behaviour of the respondents. The items selected for the analysis were duration of drug injection, sharing of injection pattern, wash needle and syringe, sterilization of needle and syringe and use of ink dropper. Information about sexual behavior are sexual intercourse experience, number of partners, type of relationship and HIV/AIDS knowledge. As shown in the Table those respondents who are highly worried about HIV/AIDS have a strong significant relationship to duration of drug injection, washing of needle and syringe and sterilization of needle and syringe. Sharing pattern

TABLE 2: PERCENTAGE DISTRIBUTION OF RESPONDENTS BY INJECTING DRUG USED BEHAVIOR, SEXUAL BEHAVIOR AND HIV/AIDS KNOWLEDGE WITH PERCEIVED ANXIETY, SUSCEPTIBILITY AND THREAT ABOUT HIV/AIDS

IDU Characteristics	Perceived Anxiety		χ^2	Perceived Susceptibility		χ^2	Perceived Threat		χ^2
	Low	High		Low	High		Low	High	
Duration (IDU) upto									
1 year	47.9	52.1	Chi value = 14.68 df = 3 sig = .002**	52.1	47.9	Chi value = 12.94 df = 3 sig = .004**	29.2	70.8	Chi value = 5.30 df = 3 sig = .150
2 years	46.1	53.9		41.6	58.4		14.6	85.4	
3 years	35.5	64.5		32.9	67.1		15.8	84.2	
4 + years	26.2	73.8		27.3	72.7		16.6	83.4	
Share IDU									
No	41.2	58.8	Chi value = .29 df = 1 sig = .585	17.6	82.4	Chi value = 2.23 df = 1 sig = .135	5.9	94.1	Chi value = 1.65 df = 1 sig = .197
Yes	34.7	65.3		35.2	64.8		18.0	82.0	
Sharing way (IDU)									
Not at all	37.5	62.5	Chi value = 1.24 df = 2 sig = .536	18.8	81.2	Chi value = 2.15 df = 2 sig = .340	6.3	93.7	Chi value = 2.20 df = 2 sig = .332
Occasional	38.0	62.0		36.7	63.3		19.9	80.1	
Many times	32.6	67.4		38.9	61.1		16.5	83.5	
Wash N & S									
No	20.0	80.0	Chi value = 28.25 df = 2 sig = .000**	20.0	80.0	Chi value = 28.25 df = 2 sig = .000**	20.0	80.0	Chi value = 23.45 df = 2 sig = .000**
Sometimes	51.7	48.3		51.7	48.3		49.7	50.3	
Yes	26.0	74.0		26.0	74.0		26.4	73.6	
Sterilize N & S									
No	28.5	71.5	Chi value = 15.85 df = 2 sig = .000**	28.5	71.5	Chi value = 15.85 df = 2 sig = .000**	25.5	74.5	Chi value = 29.35 df = 2 sig = .000**
Sometimes	47.2	52.8		47.2	52.8		52.0	48.0	
Yes	62.4	37.6		62.6	37.4		62.5	37.5	
Ink dropper used									
No	34.8	65.2	Chi value = .01 df = 1 sig = .916	33.1	66.9	Chi value = .87 df = 1 sig = .348	13.6	86.4	Chi value = 10.76 df = 1 sig = .001**
Yes	35.4	64.6		38.1	61.9		27.4	72.6	

Sex Intercourse (anytime)									
No	29.3	70.7	Chi value = 2.82 df = 1	32.3	67.7	Chi value = .41 df = 1	18.8	82.2	Chi value = .323 df = 1
Yes	37.8	62.2	sig = .092	35.6	64.4	sig = .519	16.9	83.1	sig = .629
Sexual Partner (Nos.)									
NA	29.3	70.7	Chi value = 2.85 df = 2	32.3	67.7	Chi value = .578 df = 2	18.8	81.2	Chi value = 1.02 df = 2
Single	37.1	62.9	sig = .239	34.0	66.0	sig = .748	19.6	80.4	sig = .600
More than one	38.2	61.8		36.5	63.5		15.3	84.7	
Partner type									
NA	29.3	70.7	Chi value = 3.51 df = 4	32.3	67.7	Chi value = 4.44 df = 4	18.8	81.2	Chi value = 5.31 df = 4
Wife	32.5	67.5	sig = .474	37.5	62.5	sig = .348	25.0	75.0	sig = .256
Steady & casual	39.4	60.6		38.8	61.2		18.1	81.9	
Wife & others	37.5	62.5		28.1	71.9		9.4	90.6	
All types	33.3	66.7		-	100		-	100	
HIV/AIDS Knowledge									
Low	23.7	76.3	Chi value = 7.17 df = 1	24.7	75.3	Chi value = 5.39 df = 1	27.8	72.2	Chi value = 9.47 df = 1
High	38.6	61.4	sig = .007**	37.6	62.4	sig = .020*	14.2	85.8	sig = .002**

* significant level up to 5 percent. ** significant level less than 1 percent.

IDU: Injecting drug use

N & S: Needle and syringe

Ink dropper use: Ordinary ink dropper used as syringe for drug injection.

and ink dropper used do not exhibit any significant statistical relationship. The majority of them shared injection and their perceived anxiety about HIV/AIDS is also found to be high. Similar results were found in the studies of Latashori (1994). Since any drug injection habit does not skip from sharing within the group or sub group which is a phenomenon at any set up of drug user community as a group attachment, it is, therefore, not surprising to find that majority shared drug injection in present study. The depiction of not sharing injecting equipments such as needles, syringes and cookers etc type appear into picture with inception of HIV/AIDS as a part of harm minimization and HIV/AIDS prevention programme. For example, needle exchange programme or bleaching of needle and syringe on spot use and condom use with unknown as well known partner in risky sexual practices are part of harm reduction or preventive measures undertaken.

In association with perceived susceptibility about HIV/AIDS, it is found that duration of drug injection use, washing of needle and syringe and sterilization of needle and syringe shows a significant relationship. Perhaps, this could be interpreted that those respondents who washed and cleaned and sterilized their injecting equipments show close association with perceived susceptibility about HIV/AIDS. The close association of wash or clean and sterilize injecting equipments with their perceived anxiety and susceptibility feeling has to be studied more in indepth case studies with proper understanding of wash or clean and sterilize injecting equipments process.

The results of perceived threat about HIV/AIDS similarly pick up the two variables i.e. wash and sterilization of needle and syringe indicators which were found to be significantly associated with perceived anxiety and susceptibility. In addition those who used ink dropper as syringe is significantly related with perceived threat about HIV/AIDS. Further, the remaining selected items do not show any significant association but majority of respondents have perceived threat about HIV/AIDS. This reveals that besides clean or wash of injecting equipments, ink dropper use show significant association with perceived threat about HIV/AIDS in the study population.

In overall, from Table 2, the variables which come out with high positive significant level of relationship to perceived social psychological fear about HIV/AIDS are duration of drug injection, wash or clean, sterilize of needle and syringe and ink dropper use. The social psychological fear about the disease reveals that there is a need to understand the respondents' duration of drug use, cleaning process of their injecting equipments and ink dropper use. It is felt that the information on cleaning process of each use injecting equipment could have provided much more in this type of work.

Further, Table 2 also shows relationship between sexual behavior and HIV/AIDS knowledge of the respondents in association with perceived anxiety, susceptibility and threat about HIV/AIDS. The variables taken in to account do not show any significant level of association even though more than half of the respondent indulged in sexual intercourse in their lifetime with more than one sexual partner. The respondents who had and had not sexual intercourse experience equally show high perceived anxiety,

susceptibility and threat about HIV/AIDS irrespective of marital status as well among those who had more than one sexual partner. Similarly, the type of partner also do not reflect any significant level of association but majority of the respondents are in high perceived anxiety, susceptibility and threat about HIV/AIDS. In overall, about half of respondents indulged in sexual intercourse practices and many of them with more than one sexual partners but the analysis in relation to HIV/AIDS perceived anxiety, susceptibility and threat does not exhibit any significant relationship, even though a large proportion of the respondents are in high perceived social psychological fear outcome about HIV/ AIDS.

The HIV/AIDS knowledge includes all information regarding the mode of transmission, mode of prevention, misconception and some factual knowledge of the disease with respect to correct responses of the respondents. Regarding the knowledge about HIV/ AIDS, the analysis shows that there is a high positive significant level of association with perceived anxiety, susceptibility and threat about HIV/AIDS. The results show that as the knowledge level increases about HIV/AIDS, the perceived social psychological fear about HIV/AIDS also increases among the studied population.

Conclusion

The association between all items selected regarding perceived anxiety, susceptibility and threat about HIV/AIDS has been seen from the results and discussions. Some of the variables which come out to be significant are education, monthly family income, duration of drug injection use, washing and sterilization of injecting equipments, HIV/ AIDS Knowledge. Never-the-less the remaining variables may not be significant statistically, but these items have their own advantages in carrying out the present analysis. It shows that in majority of the respondents after they sought treatment and stopped the practice of high risk behavior i.e. drug injection, the social psychological fear about HIV/AIDS still persists. The studied sample were those who have recently stopped from drug injection practices and maintaining and bringing themselves back to conventional life to be out of their past risk behavior practices. Perhaps, this could be the reason that majority of them remain with high fear about HIV/AIDS. At this juncture, the study could only suggest that there is need of further follow up and counselling to remove such social psychological fear about HIV/AIDS among those who had stopped recently from risk behavior practice of HIV/ AIDS. It also opens a way for further research work to collect much more indepth information on such issues.

References

Andrea, Carlson Gielen *et al.*, 1994, Womens' protective sexual behaviour. *AIDS Education and Prevention*, 6(1): 1-11.

- Asta, M. Kenney and others, 1989, Sex Education and AIDS Education in the School: What states and 1 school districts are doing. *Family Planning Perspectives*, 21(2): 56-64. Basu, D. P., 1995, Background Paper on Methodological Issues for Research Related to HIV/AIDS. P presented at Indo-U.S. Workshop on Behavioral Research Priorities, Tata Institute of Social Science!;! Bombay, India.
- Becker, M. H., 1974, Introduction, *Health Education Monograph*, 2(4). Britto, G., 1992, *Drug Abuse*. NARC, Bombay. Catania, J. A. *et al.*, 1990, Towards an Understanding of Risk Behaviour an AIDS Risk Reduction Model (ARRM), *Health Education Quarterly*, 17(1). Carol, S. Weismen *et al.*, 1989, AIDS knowledge, perceived risk and prevention among adolescent clients of a family planning clinic. *Family Planning Perspectives*, 21(5): 213-217. Clyde, B. McCoy. 1994, Behavioral intention with high risk drug users. Paper presented at Indo-U.S. Workshop on Behavioral Research Priorities, Tata Institute of Social Sciences, Bombay, India. Eldred, Tellis, 1995, Identification of Potential Areas for enhanced Behavioral Research in India, Focus on Injecting Drug Users. *Paper presented at Indo-U.S. Workshop on Behavioral Research Priorities*, Tata Institute of Social Sciences, Bombay, India. Eleanor, Matioka Tyndale *et al.*, 1994, Knowledge, attitude and beliefs about HIV/AIDS among women in northern Thailand. *AIDS Education and Prevention*, 6(3): 205-218. Freya, L. S. and others, 1989, Sexual Activity, Condom Use and AIDS Awareness among Adolescents Males. *Family Planning Perspectives*. Geeta, Sethie?al.. 1995. High Risk Behaviour Study. *Paper presented at Indo-U.S. Workshop on Behavioral Research Priorities*, Tata Institute of Social Sciences, Bombay, India. Heather, J. Walter *et al.*, 1994, Prevalence and correlates of AIDS related behavioral intensity among high school students. *AIDS Education and Prevention*, 6(4): 339-350. Shalini, Bharat, 1995, HIV/AIDS and the family: Issues in care and support. *Indian Journal of Social Work*, 56(2): 177-194. James, L. Sorensen *et al.*, 1994, Psycho-educational group approach: HIV risk reduction in drug users. *AIDS Education and Prevention*, 6(2): 95-112. Janathan, Mann *et al.*. 1991, *AIDS in the World*. Published by Tata Institute of Social Sciences. John, E. Anderson *et al.* 1990. HIV/AIDS knowledge and sexual behaviour among high school students. *Family Planning Perspectives*, 22(6): 252-260. John, O. G. *et al.* 1993. The Sexual Behaviour of Men in the U.S. Age Group 20-39. *Family Planning Perspectives*, 25(2): 52-60. Kasen, S. *et al.*, 1992. Self-efficacy for AIDS preventive behaviour among tenth grade students. *Health Education Quarterly*. 19. Latashori, K., 1994, A study of risk behaviors among the Intravenous drug users in Manipur. Unpublished *M. phi]*, thesis. UPS, Bombay. Margaret, M. Connors, 1992. Risk perception, risk taking and risk management among Injecting drug users implication AIDS prevention. *Social Science ami Medicine*, 36(6): 591-601. Mira. Savara, 1992. Sexuality. *Seminar*. (August) and debonair issue Nag. Moni. 1994, Sexual Aspects of AIDS/STD Prevention in India. *Indian Journal of Social Work*. Nag. Moni, 1995, Overview of Research Findings on Sexual and other HIV/AIDS Risk Behaviour in India. *Paper presented a/ Indo-U.S Workshop on Behavioral Research Priorities*, Tata Institute of Social Sciences, Bombay, India. NACO, 1994, Review of literature on risk behaviour related to AIDS/HIV infection in India. Rangaiyan, G., 1993, Sexuality and sexual behaviour among the youths in Bombay: In the age of AIDS. *Unpublished research proposal for Ph D.*. UPS. Bombay. Rick, S. Zimmerman and Kevin, Olson. 1994. AIDS related risk behaviour and behaviour change. Heterosexual sample. A test of three models of prevention. *AIDS Education and Prevention*, 6(3): 189-205.

Rosenstock, 1974, Historical origin of the Health Belief Model. *Health Education Monograph*, 2(4). Shiv, Lal *et al.*, 1994, HIV infection in India. *CARC Calling*, 7(3): 42-44'. TISS, Publication unit (1989).

Special issue on drug abuse. 50(1). Sarkar, S. *et al.*, 1993, Rapid spread of HIV among injecting drug users in North-Eastern states of India.

Bulletin on Narcotic, 155(1): 91-105. Sarkar, S. *et al.*, 1991, Descriptive epidemiology heroin users—a new risk group for transmission of HIV

in India. *Journal of Infection*, 23: 201-207. Shiv, Lal *et al.*, 1994, HIV infection in India. *CARC Calling*, 7(3): 42-44, TISS Publication unit (1989):

Special issue on drug abuse, Volume 50 (1).