Scholars Journal of Applied Medical Sciences (SJAMS) **ISSN 2320-6691 (Online)**
Sch. J. App. Med. Sci., 2016; 4(6A):1888-1901 **ISSN 2347-954X (Print)**

(An International Publisher for Academic and Scientific Resources)
www.saspublishers.com DOI: 10.36347/sjams.2016.v04i06.005

Original Research Article

Awareness and Various Misconceptions Regarding Clinical Features, Routes of Transmission and Prevention of Sexually Transmitted Diseases among Sub Study Population in North India

Dr. Ashfaqahmadbhat[1], Dr. Rafiqmir[2], Dr. Yasmeen[3]
[1]Assistant Professor, [2]Associate Professor, [3]Assistant professor Community medicine, SKIMS medical college, Bemina, Srinagar, Jammu and Kashmir, India

***Corresponding author**
Dr. Ashfaqahmadbhat
Email: medicalacademy@rediffmail.com

Abstract: The objectives of present study is to determine the awareness regarding clinical features, routes of transmission prevention and various misconceptions of sexually transmitted diseases among study subpopulation. The present study was conducted within the municipal limits of Srinagar city. The subpopulations studied were:Long distance Truck Drivers and their helpers. The study was conducted by in-depth face to face interviews with the target populations using the questionnaire based on Family Health International's instrument for Behavioral surveillance surveys with suitable modifications. The parameters studied included: 1) STD's : awareness, symptoms & treatment seeking behavior 2) Knowledge, opinions & attitudes towards HIV/AIDS 3) Exposure to interventions. The sampling strategy used for Long distance truck drivers was time / location cluster sampling.. The interviews were conducted twice in a week at each of the sites and at each visit a total of 10% truck drivers available at that time were interviewed using systematic random sampling. The data was collected over a period of six weeks from a total of 245 truck drivers. A total of 245 in depth face-to-face interviews were conducted in the study**.** Though condom awareness was high in the study groups but condom usage was low . Consistent condom usage in spousal (16%) & casual sex workers (31%) was overall much lower than consistent condom usage in commercial sex workers the same group (60%).The overall awareness about STDs was high in study group (TH) 74.29%. However the correct knowledge about at least two symptoms of STDs was low in study group (TH) 17.14%. The overall awareness about HIV /AIDS & its main modes of transmission was high in the group (above 80%). A good number of respondents had misconceptions about spread of HIV /AIDS especially about transmission by mosquito bites (60%).Awareness about modes of prevention of HIV/ AIDS was high (above 90%) .Awareness about the possibility of a confidential HIV test was high in study group however only 23% had ever had an HIV test done.A good proportion of respondents were willing to take care of an HIV +ve relative or friend (80%) but lesser no of respondents were willing to share a meal with an HIV +ve person or buy food from an HIV +ve shopkeeper (49%).Perception of risk among respondents who had indulged in unprotected non-regular sex in past one year was high (73%).Exposure to targeted interventions was significant . An overwhelming majority of respondents supported inter-personal communication or IPC (one to one, camps, group discussions) as the best mode of awareness generation about HIV/ AIDS (71%). Electronic media (Radio & TV) received second rating (46%) while very few of the respondents favored print media as the source of awareness generation about HIV/ AIDS (3%). These findings indicate that there is a need to initiate targeted interventions, and the TI Projects already being implemented with study group (TH) need to shift their focus from 'awareness generation' to 'behavior change communication' because of the finding that high level of awareness has not resulted in safer behavior practices in this group. Adequate publicity needs to be given to VCTCs & the reason for under-utilization of their services needs to be assessed.
Keywords:sexually transmitting diseases, modes of transmission, intervention, misconceptions

INTRODUCTION

Sexually transmitted infections (STIs) are those diseases that are contracted mainly through sexual intercourse. They include curable ones like gonorrhea, syphilis, and chlamydia infection as well as incurable but modifiable ones like HIV, herpes simplex, human papilloma virus (HPV), and hepatitis B infections [1, 2].

Adolescents and young adults, aged 15–24 years, are more at risk for STIs than older adults. The

World Health Organization estimates that 20% of persons living with HIV/AIDS are in their 20s and one out of twenty adolescents contract an STI each year [3]. Acquired immuno deficiency syndrome, the disease which was unknown to the medical world some two decades back, and which surfaced as an unusual chest infection in five homosexuals in U.S.A. in 1981, has within this short span of time spread throughout the length and the breadth of the world, assuming the dimensions of a truly global pandemic, resulting in the death of more than 20 million people worldwide, and another 40 million are waiting for the same fate [2].

Realizing the magnitude of the problem United Nations Secretary General Kofi Annan has said, "We must make people everywhere understand that the AIDS crisis is not about a few foreign countries far away. This is a threat to an entire generation; this is a threat to an entire civilization" [3].

The global HIV/ AIDS problem is not only a major health care issue but it has far reaching consequences, with a huge impact on the social and economic fronts as well. The lost productivity of a key demographic group---- the young---- is compounded by increased health care costs and its likely impact on the already fragile health care services.

AIDS patients (60-75%) of AIDS patients in south East Asia will develop tuberculosis. Many of the Developing World's had won child survival gains are being eroded and even reversed in some countries due to the HIV pandemic[4].

AIDS is primarily a sexually transmitted disease; it mainly strikes adolescents, young adults, and those in early middle age, killing the very people on whom the society relies for production and reproduction. Current UNAIDS figures estimate that globally, 21.8 million adults have died of AIDS, leaving an enormous number of children as orphans (13.2million). Before the advent of AIDS approximately 2% of all children in the developing countries were orphans. Coping with the cumulative impact of over 17 million AIDS deaths on orphans and their survivors, on communities, and on national development is an enormous challenge, especially in African countries with social and health services already reeling from lack of human and financial resources? In spite of all hardships and stigmata, these children have a right to education, affection and cultural identity.

Spread of the HIV/AIDS epidemic:-HIV/ AIDS is spread mainly through the three following ways:-

1. Through an exchange of body fluid, primarily during sexual intercourse between an infected person & his/her partner (man to woman, woman to man, man to man).
2. Through exchange of infected blood during transfusion, or by skin piercing instruments e.g. shaving contaminated needles & syringes during injecting during use or rarely at health care settings.
3. From an infected mother to her unborn child during pregnancy and delivery & after birth through breast-feeding.

It must be noted that majority of HIV/AIDS infected are acquired through casual, unprotected, multi-partner sex. 80-90% of HIV infects in the SE ASIA are transmitted through heterosexual contacts [5]

Behavior is the Engine that runs the AIDS epidemic. The spread of AIDS epidemic is not uniform in different geographical areas. Even within a defined population the spread is not uniform. In whom & how fast the HIV spread depends largely on the behavior & practices (mainly concerned to sexual behavior & IV drug abuse). According certain sub-groups has been classified as HRB (high risk behaviour) groups and it is these people who are most susceptible to HIV/AIDS. How fast the HIV spreads depends primarily on the prevailing risk behaviours among these groups. These groups include Commercial Sex Workers and their clients, Truck drivers and their helpers, Migrant Laborers, Urban Slum Dwellers, Street Children, and I.V. drug abusers etc. [6].

As it mainly strikes adolescents, young adults as they more likely practice unprotected sex, have multiple sexual partners, and have transgenerational and transactional sex. The cervical lining in female adolescents and young women makes them more predisposed to STIs. In addition, they may have problems getting the required information, services, and supplies they need to avoid STIs. They may also experience difficulties in accessing STI prevention services because they do not know where to find them, do not have transportation to get there, or cannot pay for the services. Even if they can obtain STI prevention services, they may not feel comfortable in places that are not youth friendly [7].

Untreated or poorly treated STIs are associated with a lot of complications. In males, gonorrhea as well as chlamydia trachomatis infection causes epididymitis which can result in infertility in the future. In addition, inflammatory urethral stricture may arise from poorly treated gonococcal urethritis in the future. This may lead to urinary retention and possibly chronic renal failure if not properly managed. For the females, pelvic inflammatory disease, dyspareunia, infertility, chronic pelvic pain, increased risk of ectopic pregnancies, abortions, stillbirths, and perinatal and neonatal

morbidities can occur, jeopardizing their future reproductive competences [8].

Knowledge of STI and their complications is important for adequate prevention and treatment, as people who do not know the symptoms may fail to recognize their need and so may not seek help. Knowledge of other STIs apart from HIV/AIDS is low in the developing world [9-11].

Importantly, literatures on the awareness of STIs in Ekiti State are quite scanty if any. This study was conducted to determine the level of knowledge of adolescents in Ado Local Government Area of Ekiti State, Nigeria, about sexually transmitted infections, to identify their specific health educational needs and make appropriate recommendations to the Government and Ministry of Education.

For the first decade or so of the HIV epidemic, many countries concentrated resources on tracking the spread of the virus itself. Industrialized countries focused on AIDS case reporting, while many developing nations, particularly those of sub-Saharan Africa, set up sentinel surveillance systems to detect the spread of HIV.

HIV incidence is costly and problematic to measure, since it involves testing the same group of individuals repeatedly over time or using costly testing methods on large numbers of people to detect a small number of new infections. Other physical markers that track sexual risk behaviour more closely than HIV are curable sexually transmitted diseases (STDs). Bacterial STD prevalence rates more closely reflect incidence rates because they are usually treated with antibiotics upon detection. However, surveillance of STDs in most countries is of lower quality than HIV surveillance. It is also extremely incomplete in the many countries where most surveillance data are collected in the public sector, while most treatment occurs in the private sector. Although measuring changes in new HIV and STD infections is difficult, it is possible to track changes in the behaviours that lead to those infections. There are several reasons to do this, and they vary in importance according to how widespread HIV is in a country and which communities are affected.

Behavioural data serves as an early warning system for HIV/ AIDS. A country monitoring the HIV epidemic is doing so because it wants to slow the spread of the virus through effective prevention programmes. Effective prevention is prevention that enables people to adopt safer behaviours and protect themselves from the risk behaviour of their partners. But effective prevention requires more than just knowing who is at risk. It also requires understanding why they engage in risk behaviour, motivating them to reduce their risk, developing their prevention knowledge and skills, improving their access to the means of prevention in ways that are appropriate and accessible to them, and providing a supportive social and policy environment for behaviour change. These requirements create a strong need for qualitative data to illuminate and clarify the determinants of risk in specific subpopulations and situations. Unless the context and forms of risk behaviour are well understood in each specific vulnerable subpopulation or risk situation, it is not possible to provide and effectively support relevant safe alternative behaviours. Thus, behavioural research data can help communities and programme planners design initiatives carefully focused on breaking the links in the chain of transmission in a particular country, region, or group. In addition, behavioural research data can quantitatively indicate who is most at risk of contracting or passing on HIV infection, and why. Such data can document levels of risk in specific communities that may be particularly vulnerable to rapid HIV spread or identify characteristics of individuals who may have higher risk, allowing prevention efforts to be prioritised and directed so as to have the greatest impact. This kind of behavioural information can act as a call to arms for many people — politicians, religious and community leaders, and people who may themselves be at risk — signalling that the threat of HIV is very real even in areas where it is not yet visible.

MATERIALS AND METHODS

The present study was conducted within the municipal limits of Srinagar city. The subpopulations studied were: Long distance Truck Drivers and their helpers. The study was conducted at the two Main Truck Terminals of the Srinagar city at i) Pantha-chowk and ii) Parimpora. The study was conducted by in-depth face to face interviews with the target populations using the questionnaire based on Family Health International's instrument for Behavioral surveillance surveys with suitable modifications. The parameters studied included: 1) STD's: awareness, symptoms& treatment seeking behavior 2) Knowledge, opinions& attitudes towards HIV/AIDS 3) Exposure to interventions. The sampling strategy used for Long distance truck drivers was time / location cluster sampling. The Study was conducted at the two main truck terminals of the Srinagar city each holding around 50 to 150 trucks a day. The NGO running the targeted intervention project with Truck drivers namely Better World was approached for building a rapport with the study population. The interviews were conducted twice in a week at each of the sites and at each visit a total of 10% truck drivers available at that time were interviewed using systematic random sampling. The data was collected over a period of six weeks from a total of 245 truck drivers.

OBSERVATIONS

A total of 245 in depth face-to-face interviews were conducted in the present study. The observations made are as under (Table-1).

All 224 sexually active respondents in Study Group (TH) were aware of male condom but only 133 had ever used them (Table-2).

All sexually active respondents who had ever used a male condom were 133 in the study Group (TH) (Table-3).

In Study Group (TH) among 133 married respondents 21 reported consistent condom usage with Spouse, 49 reported using condoms sometimes and 63 never used condoms with spouse (Table-4).

Table 1: No of respondents reporting non-regular sex in last one year

S No	Group	No of respondents reporting non-regular sex in last one year			Total No of respondents
		CSW	NCP	Total	
1.	Study group (TH)	35 (14.29%)	154 (62.86%)	154 (62.86%)	245 (100%)

Table 2: Condom awareness & usage

S No	Group	Ever heard of a male condom?		Ever used a male condom?		Total no of sexually active respondents
		Yes	No	Yes	No	
1.	Study group (TH)	224 (100%)	0	133 (59.38%)	91 (40.62%)	224 (100%)

Table 3: Condom accessibility & availability

S No	Group	Easily available?		Time taken to fetch a male condom			
		Yes	No	Less than one hour	A few hours	one day	More than one day
1.	Study group (TH)	133	0	133	0	0	0

Table 4: Condom usage with spouse

S No	Group	Condom usage with spouse			Total no of married respondents
		Always	Sometimes	Never	
1.	Study group (TH)	21 (15.79%)	49 (36.84%)	63 (47.37%)	133 (100%)

Table 5: Condom usage with commercial sex worker (CSW)

S No	Group	Condom usage with commercial sex worker (CSW)			Total no of respondents having sexual contact with CSW in past one year
		Always	Sometimes	Never	
1.	Study group (TH)	21 (60%)	0	14 (40%)	35 (100%)

In Study Group (TH) among 35 respondents who had sexual contact with commercial sex workers in past one year, 21 reported consistent condom usage while 14 had never used condoms with CSWs (Table-5).

Table 6: Condom usage at last sex with commercial sex worker (CSW)

S No	Group	Condom usage at last sex with a commercial sex worker (CSW)	Total no of respondents having sexual contact with CSW in past one year
1.	Study group (TH)	21 (60%)	35 (100%)

Out of 35 respondents in Study Group (TH) who had sex with a CSW in past one year 21 (60%) reported using condom at last sex with the CSW (Table-6).

Table 7: Condom usage with non-commercial partners (NCP)

S No	Group	Condom usage with non-commercial partners (NCP)			Total no of respondents having sexual contact with NCP in past one year
		Always	Sometimes	Never	
1.	Study group (TH)	49 (31.81%)	35 (22.73%)	70 (45.46%)	154 (100%)

In Study Group (TH) among 154 respondents who had sexual contact with non-commercial partners in past one year, 49 reported consistent condom usage, 35 used condoms sometimes while 70 had never used condoms non-commercial partners(Table-7).

Table 8: Condom usage at last sex with non-commercial partners (NCP)

S No	Group	Condom usage at last sex with non-commercial partners (NCP)	Total no of respondents having sexual contact with NCP in past one year
1.	Study group(TH)	70 (45.45%)	154 (100%)

Out of 154 respondents in Study Group (TH) who had sex with a non-commercial partner (NCP) in past one year 70 reported using condom at last sex with the NCP (Table-8).

Table 9: Summary of Sexual behavior & Condom usage

S No.	Group	Total No of respondents	Total No of respondents who ever had sexual intercourse in their life	No. of respondents reporting non-regular sex in past one year	No of respondents reporting unprotected non-regular sex in past one year
1.	Study group (TH)	245 (100%)	224 (91.43%)	154 (62.86%)	105 (42.86%)

In Study Group (TH) overall 154 respondents reported having had non-regular sex in past one year out of which 105 reported having had unprotected sexual intercourse at least sometimes in the past one year with a sexual partner other than spouse (Table-9).

In Study Group (TH) out of 245 respondents 182 had heard of STDs (Table-10).

Table 10: Awareness of STDs

Sl. NO	Group	No of respondents who have heard of STDs		Total
		Yes	No	
1.	I (TH)	182 (74.29%)	63 (24.71%)	245 (100%)

Table 11: Awareness of symptoms of STDs

S No	Group	Respondents aware of symptoms of STDs				Total No of respondents who had heard of STDs
		none	one	Two or more	Vague symptoms like pain/ weakness/ fever/ impotency	
1.	Study group(TH)	63 (25.71%)	49 (20%)	42 (17.14%)	28 (11.43%)	182 (74.28%)

Out of 182 respondents in Study Group (TH) who had heard of STDs, 63 were not aware of any symptom of STD, while 49 were aware of one symptom, and 42 were aware of two or more symptoms of STDs, 28 respondents described vague and non-specific symptoms like impotency, fever or weakness (Table-11).

Table 12: Prevalence of self-reported STDs

S No	Group	Total no of sexually active respondents	Had symptoms of STD in past one year
1.	I (TH)	224	35 (15.62%)

Table 13: Treatment seeking behavior for STDs

S No	Group	Total no of respondents who had STD in past one year	Treatment sought from				Completed treatment
			a	b	c	d	
1.	Study group (TH)	35 (100%)	21 (60%)	0	7 (20%)	7 (20%)	28 (80%)

a: Allopathic doctor, b: Govt. Hospital, c: traditional healer, d: took no treatment.

A total of 35 respondents in Study Group (TH) reported having symptoms of STD in the past one year (Table-12), out of which 21 went to an allopathic doctor, 7 went to a traditional healer and 7 took no treatment. The 28 respondents sought treatment & took complete treatment (Table-13).

All the 245 respondents in Study Group (TH) had heard of AIDS and knew that it can be transmitted from person to person (Table-14).

Table 14: Awareness of HIV/ AIDS

S No	Group	Heard of HIV /AIDS?		Can it be transmitted from person to person?	
		Yes	No	Yes	No
1.	Study group (TH)	245	0	245	0

Table 15: Spontaneous recollection of routes of transmission

Sl. No	Respondents who could recollect routes of transmission of HIV/ AIDS	Group I (TH)
1.	None (could not recollect any route of transmission)	0
2.	Sexual intercourse	238 (97.14%)
3.	Blood transfusion	98 (40%)
4.	Syringes & needles	133 (54.28%)
5.	Mother to child	0
6.	Sharing Food	28 (11.43%)
7.	Touching/ breath /Social contact	7 (2.86%)
8.	Water pollution	0

238 of the 245 respondents in Study Group (TH) could recollect the sexual route of transmission, 98 could recollect blood transfusion as the route of transmission and 133 could recollect Syringes & needles as routes of transmission. None of the respondents spontaneously recollected MTCT (mother to child transmission). 28 respondents reported sharing food as the source of transmission and 7 respondents reported social contact/ touching as the route of transmission (Table-15).

Table 16: Awareness of Sexual route of transmission of HIV / AIDS

S No	Group	Can HIV/AIDS spread by having sexual intercourse with an infected partner?			
		Yes	No	Don't Know	Total
1.	Study group(TH)	245 (100%)	0	0	245

All 245 respondents in Study Group (TH) were aware of sexual route of transmission (Table-16).

For transmission by blood transfusion 238 in Study Group (TH) said yes, none said no, while 7 were not sure (Table-17).

For transmission by syringes & needles 231 in study Group (TH) said yes, 6 said no, while 8 said don't know (Table-18).

About MTCT (mother to child transmission) 210 in study Group (TH), said yes, 21 in said no, while 14 said don't know (Table-19).

Table 17: Awareness of blood transfusion as route of transmission of HIV / AIDS

S No	Group	Can a person get HIV/AIDS by receiving untested blood transfusion?			
		Yes	No	Don't Know	Total
1.	I (TH)	238 (97.14%)	0	7 (2.86%)	245 (100%)

Table 18: Awareness of syringe & needle sharing as route of transmission of HIV / AIDS

S No	Group	Can a person get HIV/AIDS by sharing syringes or needles for injecting drugs?			
		Yes	No	Don't Know	Total
1.	Study group (TH)	231 94.28%)	6 (2.45%)	8 (3.27%)	245 (100%)

Table 19: Awareness of Mother to Child transmission of HIV / AIDS

S No	Group	Can an HIV +ve mother transmit this infection to her unborn child?			
		Yes	No	Don't Know	Total
1.	Study group (TH)	210 85.71%)	21 (8.57%)	14 (5.71%)	245 (100%)

Table 20: Awareness of four main routes of transmission of HIV / AIDS

S No	Group	Awareness about major modes of transmission of HIV /AIDS				
		Sexual intercourse	Blood transfusion	IV drug abuse	Mother to child	Total no of respondents
1.	Study group(TH)	245 (100%)	238 (97.14%)	231(94.28%)	210 (85.71%)	245 (100%)

Table 21: Misconceptions: sharing meals

S No	Group	Can a person get HIV/ AIDS by sharing a meal with someone who is infected with HIV/ AIDS?			
		Yes	No	Don't Know	Total
1.	Study group (TH)	91 (37.14%)	154 (62.86%)	0	245 (100%)

91 respondents in Study Group (TH) thought that AIDS could spread by sharing meals with an infected person. 42 respondents in Group thought that AIDS could spread by handshake / social contact with an infected person & 147 respondents thought that AIDS could spread by mosquito bites (Table-20 and Table-21).

Table 22: Misconceptions: social contact

S No	Group	Can a person get HIV/AIDS by handshake / touching/ social contact with an infected person?			
		Yes	No	Don't Know	Total
1.	Study group (TH)	42 (17.14%)	203 82.86%)	0	245 (100%)

Table 23: Misconceptions: mosquito bites

S No	Group	Can a person get HIV/ AIDS by mosquito bites?			
		Yes	No	Don't Know	Total
1.	Study group (TH)	147 (60%)	91 (37.14%)	7 (2.86%)	245 (100%)

Table 24: Misconceptions about spread of HIV / AIDS

S No	Group	Misconceptions about routes of transmission of HIV/AIDS			
		Sharing meals	Social contact	Mosquito bites	Total
1.	Study group (TH)	91 (37.14%)	42 (17.14%)	147 (60%)	245 (100%)

Table 25: Awareness about prevention of HIV / AIDS

S No	Group	Respondents aware of ways of prevention of HIV / AIDS (abstinence, being faithful, using condoms)		Respondents not aware of any modality of prevention	Total
		a + b + c	a + b		
1.	Study group (TH)	224 (91.43%)	21 (8.57%)	0	245

Note: a: abstinence b: being mutually faithful to single sexual partner c: correct & consistent usage of condoms.

224 of the 245 respondents in Study Group (TH), were aware of the three important ways of prevention of HIV/ AIDS (abstinence, having single faithful un-infected partner and correct & consistent usage of condoms) and the rest 21 were aware of at least two ways of prevention (abstinence and fidelity) (Table-25)

Table 26: Awareness about prevention of HIV / AIDS

S No	Group	Awareness of modes of prevention of HIV/ AIDS		
		Abstinence	Being faithful	Condom usage
1.	Study group (TH)	100%	100%	91.43%

Table 27: Awareness /utilization of confidential testing facilities

S No	Group	Confidential HIV test possible	Had an HIV test done	Total no of respondents
1.	Study group(TH)	210 (85.71%)	56 (22.86%)	245

Table 28: Attitudes: sharing meals with HIV +ve person

S No	Group	Willing to share a meal with someone whom you know has HIV/AIDS?			
		Yes	No	Can't say/ not sure	Total
1.	Study group (TH)	119 (48.57%)	126 (51.43%)	0	245 (100%)

When asked whether they would be willing to share a meal with someone whom they knew had HIV/ AIDS, 119 respondents in Group I (TH) replied in affirmative and 126 replied in negative.

Table 29: Attitudes: caring for sick HIV+ve person

S No	Group	Willing to take care of a relative who is ill because of HIV / AIDS?			
		Yes	No	Can't say/ not sure	Total
1.	Study group (TH)	196 (80%)	35 (14.28%)	14 (5.71%)	245 (100%)

When asked whether they would be willing to take care of a relative who is ill because of HIV/ AIDS, 196 respondents in Study Group (TH) replied in affirmative and 35 replied in negative and 14 were not sure whether they would do so.

Table 30: Attitudes: buying food from HIV +ve person

S No	Group	Willing to buy food from someone whom you know has HIV/AIDS?			
		Yes	No	Can't say/ not sure	Total
1.	Study group (TH)	119 (48.57%)	126 (51.43%)	0	245 (100%)

When asked whether they would be willing to buy food from a shopkeeper whom they knew had HIV/ AIDS, 119 respondents in Study Group (TH) replied in affirmative and 126 replied in negative.

Table 31: Attitudes towards HIV+ve person

S No	Group	Attitudes towards HIV positive persons			
		Share meals with him	Care for him during sickness	Buy food from HIV +ve shopkeeper	Total
1.	Study group(TH)	119 (48.57%)	196 (80%)	119 (48.57%)	245 (100%)

Though 105 respondents in Study Group (TH) had unprotected non-regular sex in past one year only 77 perceived that they were at the risk of acquiring HIV / AIDS.

Table 32: Perception of Risk

S No.	Group	Total No of respondents	No of respondents reporting unprotected non-regular sex in past one year	No of respondents perceiving risk of acquiring HIV / AIDS	Risk Perception %
1.	Study group (TH)	245	105 (42.86%)	77(31.43%)	73.33%

Table 33: Exposure to interventions in the past one year

S No.	Group	Total No of respondents	Seen billboard/ poster/ leaflet on HIV/ AIDS	Approached for education on HIV/ AIDS	Participated in program/ meeting/ campaign on HIV / AIDS	Received a free medical checkup for HIV / AIDS
1.	Study group (TH)	245	189 (77.14%)	140 (57.14%)	84 (34.29%)	42 (17.14%)

In Study Group (TH) out of 245 respondents, 189 had seen a billboard/poster/leaflet on HIV/AIDS, 140 had been approached by somebody to educate them on HIV/AIDS, 84 had attended/participated in any campaign/ meeting/ program on HIV/AIDS and 42 had received a free medical checkup for HIV/AIDS in the past one year.

Table 34: Best channel of communication

S No	Best Mode of awareness generation for HIV/ AIDS	Group I (TH)
1.	Electronic Media (Radio & TV)	70 (28.57%)
2.	Print Media (newspaper/ poster / leaflet etc.)	0
3.	Inter-personal Communication IPC (group discussions, one to one talk, camps etc.)	133 (54.29%)
4.	Electronic Media + IPC	35 (14.29%)
5.	Electronic Media + Print Media + IPC	7 (2.86%)
6.	Total	245 (100%)

133 respondents in Study Group considered inter-personal communication (group discussions, one to one talk, meetings, and awareness camps) as the best mode of awareness generation in their respective community. 70 respondents considered Electronic Media (Radio & TV) as the best mode of awareness generation in their respective community. 35 respondents considered both Electronic Media as well as IPC (inter-personal

communication) as the best mode of awareness generation & 7 respondents considered all the three channels (electronic media, print media & interpersonal communication) equally effective in generating awareness about HIV/ AIDS in their respective communities.

Table 35: Best channel of communication

S No	Best Mode of awareness generation for HIV/ AIDS	Study Group (TH)
1.	Inter-personal Communication IPC (group discussions, one to one talk, camps etc.)	175 (71.43%)
2.	Electronic Media (Radio & TV)	112 (45.71%)
3.	Print Media (newspaper/ poster / leaflet etc.)	7 (2.86%)
4.	Total	245

Thus overall IPC (Interpersonal communication) received the maximum opinion as the best mode of awareness generation in all the three groups followed by electronic media & print media.

DISCUSSION

Being one of the coldest regions on the Country's AIDS map should not make us complacent, because there are a number of factors which make Srinagar/ Kashmir vulnerable to rapid spread of HIV /AIDS once it gains a firm foothold in this region of the country. According to UNAIDS & WHO classification of Three different epidemic states, Srinagar/ Kashmir comes under low-level epidemic state as the sentinel surveillance data from 2003 through 2004 has not demonstrated HIV prevalence in any defined sub-population going above the 5% mark (in fact the 2004 data has shown a prevalence of HIV less than 1% even in high risk groups). However HIV is slowly but surely permeating our population like a silent tide as demonstrated by the reports of VCTCs (voluntary counseling & testing centres) & blood banks. It is the right time to wake up to the clarion call & gear up our armament to face one of the deadliest challenges of modern times.

In order to handle the epidemic of AIDS in the most effective manner the first requirement is an effective surveillance system, which can track the spread of this silent scourge. It is now an accepted fact AIDS Case Surveillance & even HIV sero-surveillance are not very efficient tools for predicting the trends in the spread of HIV/AIDS; however Behavioral Surveillance system is the one which acts as one of the earliest warning systems, tracking high risk behavior & predicting trends in the HIV/AIDS epidemic. It was in this context that the present study was undertaken.

The present study was undertaken among vulnerable subpopulations viz long distance truck drivers.

Long distance truck drivers & their helpers

As there is no railway link between Kashmir & the rest of the country, the entire transportation of cargo & foodstuffs on either side of the PirPanjal range is dependent upon the trucking industry. The trucks carrying poultry from Punjab, livestock from Rajasthan, foodstuffs from north India & industrial products from the rest of the country find two main halting points within Srinagar – the Panthachowk& the Parimpora Truck terminals. The Panthachowk terminal is mainly used by trucks carrying items meant for onward stations like Baramulla & Ladakh while the truck terminal at Parimpora is mainly used as an unloading station for products meant for Srinagar. At each of these truck terminals at least 50 to 150 trucks are stationed at any particular time. At an average it takes anywhere between two weeks to more than a month for a truck to make its appearance again on the terminal after its departure & these truck drivers & their helpers happen to spend most of their time in close proximity to their trucks, leaving quite little time to spend with their families.

The awareness about condoms among the Long distance truck drivers and their helpers was high. All the 224 sexually active respondents had heard of the male condom (100%) but only 59.38% had ever used a male condom though all of them reported that condoms were easily available and it would take them less than one hour to fetch a male condom.

60% of the Long distance truck drivers & helpers who had sex with CSW/s reported consistent condom usage & all of them reported condom usage at last sex with a CSW while 31.81% reported consistent condom usage with NCP/s and 45% reported condom usage at last sex with a non-commercial partner (NCP). The Pondicherry BSS (2002-2003) gives similar figures with 60% truckers reporting condom usage with CSWs, and 50% reporting condom usage with casual (non-commercial) partners. The New ERA study group's 4th round of BSS in Nepal showed 60.1% truckers using condoms consistently with CSWs and 35% to 54.5% consistent condom usage with casual partners (35% for

girlfriend and 54.5% for other female friends). These observations indicate that the condom usage among truckers & their helpers is low even in high risk situations[13,14].

Although 74.28% of the Long distance truck drivers & their helpers had heard of STDs only 17.14% could correctly mention two or more symptoms of STDs, while 11% mentioned vague & non-specific symptoms like pain, weakness & impotency. 15.62% respondents reported having had symptoms of STD in past one year out of which more than half (60%) sought treatment from an Allopathic Doctor, 20% went to a traditional healer & 20% took no treatment. These observations suggest that though the overall awareness about STDs in Long distance truck drivers & their helpers is high, but the correct information about symptoms of STDs is very low. The proportion of respondents who took treatment from a qualified medical practitioner was 60% which is nearer to the findings of Pondicherry BSS (64%) but lower than the findings of Tamil Nadu BSS wave VIII (73.7%)[13]

Ford N, Inman M [15]from Institute of Population Studies, University of Exeter, Devon, England conducted surveys of 16-24 year old tourist workers and 16-24 year old residents in Torbay, England during summer of 1989 which revealed considerable unsafe sex practices among respondents. Singh YN, Malaviya AN[16] from the Department of Medicine, All India Institute of Medical Sciences, New Delhi studied the HIV risk behavior, condom use, and HIV/AIDS awareness through a survey and interviews with 200 randomly selected truck drivers.78% of drivers admitted having multiple heterosexual partners. The authors note that while HIV awareness improved in subsequent years, the practice of safe sex did not. 42% and 56% of the drivers had heard about HIV/AIDS in 1991 and 1992, respectively, but 77% and 68% were nonetheless engaging in occasional unprotected sex.

Bwayo JJ, Mutere AN, et al [17] from the Department of Medical Microbiology, University of Nairobi, Kenya studied the Knowledge and attitudes concerning sexually transmitted diseases and sexual behaviour Long distance truck drivers. Nearly all of them, 99% (3.7/321), had heard of AIDS through mass media and from friends. The data obtained show a clear lack of correlation between the correct knowledge of AIDS and application in the prevention of acquisition and transmission of STD.

Bansal RK [18] studied the Sexual behaviour and substance use patterns amongst adolescent truck cleaners and risk of HIV / AIDS. Special programs are required for these adolescents to educate them about the risks of unprotected sex and drugs in order to prevent them from contracting HIV/AIDS.Araoye MO, Onile BA et al [19] from the Department of Epidemiology, University of Ilorin, Nigeria carried out a survey of 180 randomly selected drivers in June 1994 in Ilorin, Nigeria in order to gain information about high-risk sexual behaviours .Half of the respondents engaged in high-risk sexual behaviour and a high proportion of them (60 percent) reported unwillingness to use the condom. Ford K, Wirawan DN et al [20] from School of Public Health, University of Michigan, Ann Arbor USA studied the AIDS knowledge, risk behaviors, and factors related to condom use among male commercial sex workers and male tourist clients in Bali, Indonesia to describe the AIDS/sexually transmitted diseases (STD) knowledge and risk behaviors There is a very active and mobile group of male CSW and tourist clients present in Bali. Interventions with these men are needed due to the low level of knowledge about AIDS among CSW, their experience with STD and STD symptoms, and their level of risky sexual behavior.Gupta I, Mitra A [21] assessed the Knowledge of HIV / AIDS and found more or less similar results.

Podhisita C, Wawer MJ, et al [22] from Institute for Population and Social Research, Mahidol University, Bangkok, Thailand investigated the Sexual behavior and condom use among long-distance truck drivers in Thailand to define patterns and determinants critical to the transmission of HIV. Common were misconceptions about AIDS; for example, 25% felt they could not get HIV from someone who looked healthy.

Aswar NR et al [23]from the Department of Preventive and Social Medicine, Indira Gandhi Medical College, Nagpur did a cross sectional study among truck drivers made to assess awareness regarding AIDS in 225 long route truck drivers. Although most of the truck drivers had fairly good knowledge about the AIDS, they were still confused about causation, mode of transmission, and prevention of AIDS with special reference to the use of condoms in protecting both the partners.

Nzyuko S, Lurie P, et al [24] from African Medical and Research Foundation, Nairobi, Kenya studied the demographic characteristics and HIV-related risk behaviors of adolescents frequenting truck stops along the Trans-Africa Highway in Kenya. Adolescents at truck stops along the Trans-African Highway in Kenya appear to be at significant risk for HIV infection. In the absence of an immediate and wide-ranging intervention, these conditions are likely to facilitate the spread of HIV from truck drivers and sex workers to adolescents.

Forsythe S, Hasbun J, Butler de Lister M [25]from AIDSCAP/Family Health International, Arlington, VA, USA .Based on their findings, it is recommended that in order to minimize the potential

social and economic impact of HIV/AIDS in the D.R., prevention messages need to reach a number of groups which have not yet been adequately targeted.

Fernandes JC [26] from Posto de Saude da Associacao Flores 4, Rio de Janeiro, Brazil evaluated the present stage of knowledge, attitudes, and behavior related to HIV/AIDS in the population Misconceptions about the role of mosquito bites and blood donation in the transmission of HIV persist, almost in the same proportion. Comparing the two samples, there was a significant increase in the role of HIV/AIDS education provided by schools, and the study also identified an increase in the rates and regularity of condom use. More efforts should be made to reduce misconceptions about HIV transmission and the vulnerability of couples. The study also highlights the need for more consistent policies related to condom distribution to the general population.

Gysels M et al [27] from the Medical Research Council Programme on AIDS in Uganda, Uganda Virus Research Institute studied the sexual cultures among Truck drivers, middlemen and commercial sex workers. Although long distance truck drivers have been implicated in the spread of HIV in Africa, there is a paucity of studies of their sexual cultures .Interviewing truck drivers also entailed participating in the town's nightlife and spending much time in the bars. General use of condoms is encouraging, particularly given the context of a culture generally opposed to condoms.

Villarinho L et al [28] from Associacao de Pesquisa DST/Aids, Sao Paulo, SP, Brasil. Studied the vulnerability to sexually transmitted HIV/AIDS of short distance truck drivers. Of all 279 truck drivers interviewed, 93% had a stable female partner, 40% engaged in casual sexual with female partners, and 19% said to have sex with other regular partners. Vulnerability to HIV is increased by inconsistent condom use in all categories of sexual partners. Prevention programs at the work environment seem to be a promising strategy, since it allows a better understanding of the workers' setting and development of customized educational interventions.

Gibney L, Saquib N, Metzger J [29] from the Department of Epidemiology, University of Alabama at Birmingham, USA, examined the behaviors that could influence STD/HIV transmission in Bangladesh's trucking industry. Focus group and in-depth interviews were also conducted. The focus was on behaviors that affect (i) exposure to STD/HIV infection, (ii) efficiency of transmission of infection and (iii) duration of infectiousness. To reduce the potential for the spread of STD/HIV in this population, appropriate treatment practices for sexually transmitted infections need to be encouraged and condom use promoted, particularly in the context of casual sexual relations.

In our study, all the 245 respondents in this group (TH) had heard of HIV/ AIDS and knew that it can be transmitted from person to person. The awareness about four major modes of transmission of HIV/ AIDS was also very high in this group. All the respondents (100%) knew that HIV/AIDS can be spread by sexual intercourse, 97.14% respondents knew that it can be transmitted by blood transfusion, 94.28% knew that HIV/AIDS can spread by sharing of needles & syringes and 85.71% respondents were aware of the Mother to child transmission. However a good proportion of respondents also had misconceptions about the modes of transmission. Thus 37.14% said it can spread by sharing meals, 17.14% said it can spread by ordinary social contact while another 60% thought that HIV/ AIDS can spread by mosquito bites. These findings are significant because people with misconceptions about modes of spread of HIV/ AIDS tend to have negative attitudes towards HIV positive persons as they perceive themselves to be at risk of getting HIV/ AIDS from the infected persons by these routes, and thus want to keep away from HIV positive people which leads to social isolation for PLWHA.

The awareness about three main modes of prevention was also high in this group (TH). All 245 respondents in this group (100%) were aware of the fact that i) abstinence & ii) being mutually faithful to single sexual partner could protect a person from getting HIV /AIDS. 91.43% of the respondents were aware that consistent condom usage can protect a person from getting HIV /AIDS. These figures correlate well with previous studies

When asked about the best mode of awareness generation about HIV/ AIDS in this group (TH) an overwhelming majority supported inter-personal communication or IPC (one to one, camps, group discussions) as the best mode (71.43%). Electronic media (Radio & TV) received second rating with 45.71% respondents supporting it while only 3% of the respondents favored print media as the source of awareness generation about HIV/ AIDS.

SUMMARY

- Though condom awareness was high in the study groups but condom usage was low. Consistent condom usage in spousal (16%) & casual sex workers (31%) was overall much lower than consistent condom usage in commercial sex workers the same group (60%).
- The overall awareness about STDs was high in study group (TH) 74.29%. However the correct knowledge about at least two symptoms of STDs was low in study group (TH) 17.14%.

- The overall awareness about HIV /AIDS & its main modes of transmission was high in the group (above 80. A good number of respondents had misconceptions about spread of HIV /AIDS especially about transmission by mosquito bites (60%).
- Awareness about modes of prevention of HIV/ AIDS was high (above 90%)
- Awareness about the possibility of a confidential HIV test was high in study group however only 23% had ever had an HIV test done
- A good proportion of respondents were willing to take care of an HIV +ve relative or friend (80%) but lesser no of respondents were willing to share a meal with an HIV +ve person or buy food from an HIV +ve shopkeeper (49%).
- Perception of risk among respondents who had indulged in unprotected non-regular sex in past one year was high (73%)
- Exposure to targeted interventions was significant
- An overwhelming majority of respondents supported inter-personal communication or IPC (one to one, camps, group discussions) as the best mode of awareness generation about HIV/ AIDS (71%). Electronic media (Radio & TV) received second rating (46%) while very few of the respondents favored print media as the source of awareness generation about HIV/ AIDS (3%)

CONCLUSIONS AND RECOMMENDATIONS

The vulnerable sub-populations were studied for knowledge indicators for awareness on HIV/AIDS & STDs & behavioral indicators of condom usage. Despite the high awareness level of Long distance truck drivers & their helpers about STDs & HIV / AIDS, the prevalence of un-protected non – regular sex was high in this group (42.86%). Condom usage was low. Utilization of voluntary counseling & testing services was low and IPC (interpersonal communication) was considered as the best way to approach these sub-populations

These findings indicate that there is a need to initiate targeted interventions, and the TI Projects already being implemented with study group (TH) need to shift their focus from 'awareness generation' to 'behavior change communication' because of the finding that high level of awareness has not resulted in safer behavior practices in this group. Adequate publicity needs to be given to VCTCs & the reason for under-utilization of their services needs to be assessed.

REFERENCES

1. www.cnn.com In-Depth Specials - AIDS: 20 years of an epidemic.
2. www.naco.nic.in\HIV/AIDS\Global Scenario 2002
3. www.unaids.org
4. AIDS; The Challenge: WHO Regional Office for S. E. Asia Publication 1999; 7-8.
5. Investing in our future; UNAIDS case study: July 2001 Pg. 18
6. AIDS; The Challenge: WHO Regional Office for S. E. Asia Publication 1999; 9.
7. South Asia; The HIV/AIDS epidemic: UNICEF Publication May 2001; 7.
8. AIDS; The Challenge: WHO Regional Office for S.E.Asia Publication 1999; 13.
9. Guidelines for Second Generation HIV Surveillance UNAIDS/WHO working group on Global HIV/AIDS and STI surveillance. WHO/CDS/CSR/EDC/2000.5; 13-14.
10. www.fhi.org\HIV/AIDS\BSS\introd.htm.
11. Guidelines for Second Generation HIV Surveillance UNAIDS/WHO working group on Global HIV/AIDS and STI surveillance. WHO/CDS/CSR/EDC/2000.5; 12-16.
12. www.apacvhs.org/download_executive summary.
13. www.fhi.org/ Pondicherry BSS Executive summary.
14. Behavioral Surveillance Survey in the Highway Route of Nepal Round 4 May 2002; 20.
15. Ford N, Inman M; Safer sex in tourist resorts. World Health Forum. 1992; 13(1):77-80.
16. Singh YN, Malaviya AN; Long distance truck drivers in India: HIV infection and their possible role in disseminating HIV into rural areas. International Journal of STD AIDS. 1994; 5(2):137-8.
17. Bwayo JJ, Mutere AN, Omari MA, Kreiss JK, Jaoko W, Sekkade-Kigondu C, Plummer FA; Long distance truck drivers. 2: Knowledge and attitudes concerning sexually transmitted diseases and sexual behaviour. East African Med Journal, 1991; 68(9):714-9.
18. Bansal RK; Sexual behaviour and substance use patterns amongst adolescent truck cleaners and risk of HIV / AIDS. Indian Journal of Maternal & Child Health, 1992; 3(4):108-10.
19. Araoye MO, Onile BA, Jolayemi ET; Sexualbehaviour and condom acceptance among Nigerian drivers. West African Journal of Medicine, 1996; 15(1):6-10.
20. Ford K, Wirawan DN, Fajans P, Thorpe L; AIDS knowledge, risk behaviors, and factors related to condom use among male commercial sex workers and male tourist clients in Bali, Indonesia. AIDS, 1995; 9 (7):751-9.
21. Gupta I, Mitra A; Knowledge of HIV / AIDS among migrants in Delhi slums. .Journal of Health & Population in Developing Countries, 1999; 2(1):26-32.
22. Podhisita C, Wawer MJ, Pramualratana A, Kanungsukkasem U, McNamara R; Multiple

sexual partners and condom use among long-distance truck drivers in Thailand. AIDS Education Prev., 1996; 8(6):490-8.
23. Aswar NR; Kale KM; Shendre M; AIDS awareness amongst truck drivers Indian Journal of Sexually Transmitted Diseases, 1997; 18(1): 6-8.
24. Nzyuko S, Lurie P, McFarland W, Leyden W, Nyamwaya D, Mandel JS; Adolescent sexual behavior along the Trans-Africa Highway in Kenya. AIDS, 1997; 11 Supplement 1:S21-6.
25. Forsythe S, Hasbun J, Butler de Lister M; Protecting paradise: tourism and AIDS in the Dominican Republic. Health Policy Plan, 1998; 13(3):277-86.
26. Fernandes JC; Trends in HIV/AIDS-related knowledge, attitudes, and practices in a Rio de Janeiro slum population. Cad SaudePublica, 1998; 14(3):575-81.
27. Gysels M, Pool R, BwanikaK; Truck drivers, middlemen and commercial sex workers: AIDS and the mediation of sex in south west Uganda. AIDS Care, 2001; 13(3):373-85.
28. Villarinho L, Bezerra I, Lacerda R, LatorreMdMdo R, Paiva V, Stall R, Hearst N; Vulnerability to HIV and AIDS of short route truck drivers, Brazil. Rev Saude Publica, 2002; 36(4 Suppl):61-7.
29. Gibney L, Saquib N, Metzger J; Behavioral risk factors for STD/HIV transmission in Bangladesh's trucking industry. Social Science & Medicine. 2003; 56(7):1411-24.