

Risky Behaviors of HIV Infection among Patients with Drug Dependence in Gharbia Governorate

Hosam El-Sawy¹ and Ibrahim Kabash²

¹ Assistant Professor in Neuropsychiatry Department, Tanta University

² Professor in Public Health Department, Tanta University

ABSTRACT

Introduction:

Aim of the study: To study risky behaviors for HIV infection by Patients with substance dependence and assess their needs for prevention.

Subjects and methods: This study was conducted on 188 patients with substance dependence using a pre tested and pre designed questionnaire sheet.

Results: The majority of studied patients aged 20-40 years (81.4%), males (88.8%), of urban residence (69.7%) and of single marital status (69.7%). Illiteracy represented 10.6% and 22.3% was unemployed. Practicing drug injection was found among 44.7% out of them 42.9% shared needles. Knowledge about HIV/AIDS was found among the majority of studied addicts but deeper knowledge about modes of transmission was defective. Only 11.2% were ever screened for HIV compared with 43.6% for viral hepatitis. Risk perception for HIV infection was found among 28.6% of injecting drug users and 22% of patients with unsafe sexual relations. Nearly two thirds had extramarital sex with multiple partners while 66.9% reported never use condoms. Hepatitis B and C and sexually transmitted infections were significantly higher among patients with substance dependence with unsafe sexual behaviors and drug injection.

Conclusion: Risky behaviors for HIV infection are common among studied patients. Their risk perception and knowledge about HIV/AIDS was, however, found defective. There is urgent need for outreach programs to increase their awareness about harm reduction measures.

Key words: Drug dependence, HIV.

Current Psychiatry; Vol.17, No.4 2010: 57-65

INTRODUCTION

Sharing syringes and other equipment for drug injection is a well-known route of HIV transmission, yet injection drug use contributes to the epidemic's spread far beyond the circle of those who inject. People who have sex with an injection drug user (IDU) also are at risk for infection through the sexual transmission of HIV. Children born to mothers who contracted HIV through sharing needles or having sex with an IDU may become infected as well¹.

Non-injection drugs also contribute to the spread of the epidemic when users trade sex for drugs or money, or when they engage in risky sexual behaviors that they might not engage in when sober². A study conducted by Center for Disease Control and Prevention in USA (CDC) on more than 2,000 young adults in three inner-city neighborhoods found that crack smokers were three times more likely to be infected with HIV than non-smokers³.

Reducing the risk of HIV/AIDS in drug users is an achievable goal. To prevent the spread of HIV and other blood-borne infections, drug users must reduce or eliminate those behaviors that place them and others at risk. Research has shown that appropriately designed prevention programs can reduce transmission of not only HIV but of other blood-borne diseases (e.g., hepatitis B [HBV], hepatitis C [HCV]), and other sexually transmitted infections [STIs] as well⁴.

Because the nature and extent of drug abuse and the HIV/AIDS epidemic vary widely, prevention strategies must be adapted to local community needs and resources. Local drug use and HIV/AIDS risk-behavior patterns must be tracked to refine program approaches over time and to evaluate program outcomes⁵.

In Egypt, drug and substance abuse constitutes one of the major health problems facing the Egyptian society.

It was reported that the number of heroin users and amounts of heroin seized in Egypt was rising. Also, opium cultivation in Sinai and southern Egypt is increasing⁶. Although Egypt is considered one of low prevalence country for HIV/AIDS, drug addiction, Egypt is thought to be the fueling factors of HIV/AIDS epidemic if not controlled⁷.

The aim of this study is to detect risky behaviors for HIV infection by patients with drug dependence and this means the behaviors and concepts that lead to HIV infection among those patients and assess the methods and concepts that can be used to prevent infection.

METHODOLOGY

This Cross sectional study was conducted in Gharbia Governorate and other near governorates in the Nile Delta Region during a period of a year starting march 2009. Patients with substance dependence admitted for treatment from drug addiction or neuropsychological manifestations related to drug addiction at government, private hospitals and private clinics (as Tanta University Hospitals- Tanta University Center for Psychiatry and Neurology which had Department of substance abuse (40 beds) and Outpatient clinic for substance abuse- Tanta mental Hospital – Mahalla El-Kobra Hospital- Private Clinics of the authors) were encouraged to share in the study and a peer group was organized and trained to attract street addicts and those not receiving treatment to share in the study. Contacts were made with specialists in the field of management of drug addiction in the study area to encourage them to share in the study. A meeting was arranged with specialists from the University Hospital and Ministry of Health Mental Hospitals to explain the study objectives and activities. Those who were willing to share were further interviewed to discuss with them the study tools. Interviewing of the study subjects was done at the private clinics of specialists who shared in the study to ensure more confidentiality.

Patients with Drug dependence aging 15-45 years of both sex were the target of this study. Patients were enrolled in the study irrespective of the type of the drug abused and the method of administration (injection or by other routes). This brought a total of 188 patients during a period of one year of data collection.

Data Collection methods:

A predesigned questionnaire sheet was used for data collection including the following: Socio-demographic data (e.g age, sex, residence, occupation, social standard, education, marital status, etc.), data related to perception of risk by studied groups for HIV/AIDS (e.g. knowledge about the problem of HIV in Egypt), data

related to risky behaviors of drugs for HIV/AIDS (e.g. shared needles, extramarital relations, etc.), attitude and extent of adoption of preventive measures known to reduce infection (e.g. use of condom, screening for HIV, etc.) and self reported past history of any blood borne or sexually transmitted infections (e.g. did you have HCV, HBV, venereal disease, etc.).

Content validity of the questionnaire was tested by peer reviewing and reviewing by three experts. The questionnaire was tested by three professors in Neuropsychiatry department and their comments were added and then three experts in Public Health Department were asked to review the questionnaire and approve it.

A pilot study including 30 individuals, not included in the study sample, was done to ensure its suitability for data collection relevant to study design and objectives. Cronbach's alpha was calculated and found to be 0.754.

Test retest reliability was conducted. The same subjects were interviewed twice by the same interviewer at two weeks interval to study intra-rater reliability. Inter-rater bias was tested by repeated interviewing of the same subjects by different interviewers. Spearman's rank correlation coefficient was calculated for each item of the questionnaire sheet and was found to be not less than 0.6.

Multiple interviews were arranged with each participant before starting filling the questionnaire to build confidence and trust with data collectors and ensure their cooperation.

All patients were selected according to DSM IV criteria of drug dependence [8].

Ethical clearance and ethical issues:

Ethical clearance of Tanta Faculty of Medicine was obtained. Consent of members of the study sample was taken through witnessed verbal consent after clarifying objectives of the study and confidentiality of obtained data.

Data Management and Statistical Analysis:

The collected data was organized and statistically analyzed using SPSS software statistical computer package version 12. The total knowledge score was calculated by giving 0 to incorrect answer and 1 for the correct one. The total score of each individual was divided by the maximum score and multiplied by 100 to get the percent related to maximum score. The mean and standard deviation was used for presentation of quantitative data. The student (t) test was used for comparison between two means. For qualitative data the number and percent distribution was calculated and Chi

square test was used for comparison between studied groups. When Chi square was not found appropriate due to presence of small observation values summation of some group was done to be able to use the Chi square and Fisher exact test was used when summation was not feasible. The 5% level of significance was adopted for interpretation of tests of significance.

RESULTS

Characteristics of the studied addicts:

The current study included 231 patients apart from 30 patients who were included in the pilot study. Forty three patients refused the study for fear of disclosure issues and only 188 completed the questionnaire. The majority of patients aged 20-40 years (81.4%). Males represented the majority of sample size (88.8%). Single marital status was reported (60.6%). Illiterate patients represented 10.6% while secondary education and higher educational level represented 69.2% both. Concerning their occupation, the highest percentage was among skilled workers (36.2%), unemployed (22.3%) and professionals (18.1%). The duration of addiction was found to be five years or more among 76.6 %.

Factors affecting risky behaviors among addicts:

Those who abused drugs at their teenage were found to have higher percentage of extramarital sex (68.9%) compared with those who started after 20 years of age (59.4%). Addicts of single marital status were more reporting extramarital sex (68.4%) than those who ever married (54.1%). Using multi-drugs increases extramarital sex (72%) compared with those using 1-2 drugs (52.3%). Those who practice drug injection were found to more liable to practice extramarital sex (72.6%) compared with non-injectors (54.8%) (Table 1).

Drug injection:

Injecting drugs among females was found to represent 71.4% which was significantly higher than 41.3% among males. Addicts of urban residence were found to practice injecting drugs at a higher statistically significant percentage (50.4%) compared with rural addicts (31.6%). Occupation was also found to affect significantly the practice of drug injection. The highest percentages of drug injectors were found among unemployed addicts (64.3%) and employees and professionals (54%). Multi-drug abusers were significantly more likely to inject drugs (62%) than those abusing 1-2 drugs only (25%). Among those who

practice extramarital sex 51.7% reported practicing also drug injection which was significantly higher than 32.9% among those with no extramarital sex (Table 2).

Factors affecting knowledge and attitude of studied addicts regarding HIV/AIDS:

Injecting drug users were found to report heterosexuality, injectable drug abuse and blood transfusions as methods for HIV infection (69%, 44% and 59.5%, respectively) significantly more than their non-injecting peers (52.9%, 19.2% and 37.5%, respectively). Also, injecting drug users perceived more significantly the presence of HIV/AIDS as a problem in Egypt whether as a limited or serious problem (76.2%) compared with their counter group (51.0%). Methods of transmission were reported to be known more by injecting drugs (82.1%) than non injecting (51.9%). Again, injecting drug users were found to have a higher percentage for screening for viral hepatitis (52.4%) than non-injecting group (36.5%). Injecting drug users were found to be screened for HIV among 15.5% of them which is double that of non-injecting group (7.7%). However, this difference was not found statistically significant (Table 3).

Factors affecting knowledge and risk perception for HIV/AIDS by studied addicts:

Total knowledge score for studied addicts was found significantly higher among those of urban residence (60.31 ± 17.98) compared to rural residents (46.73 ± 15.67). Knowledge mean score was found to increase significantly with increased educational level (69.91 ± 12.30) in comparison to illiterate addicts (44.09 ± 17.76). Concerning occupation, manual and skilled workers were having significantly lower mean knowledge score compared to other occupations. Those injecting drugs were found significantly more knowledgeable compared with those who did not. (Table 4)

Distribution of reasons for risk perception in relation to practicing extramarital sexual relation showed that those with extramarital relation significantly had higher risk perception (22%) than others without such relations (8.6%). No method of infection was significantly more reported by those not practicing extramarital sex (42.9%) compared to those who had these relations (7.6%). Partners being health and clean was significantly more reported by persons with extramarital relations (14.4%) (Table 5).

Table (1): Distribution of studied substance users in relation to the practice of extramarital sexual relations in relation to other variables

Variables		Extramarital sexual relations				X ²	P
		Absent (n=70)		Present(n=118)			
		n	%	n	%		
Age in years:	<20	8	53.3	7	46.7	4.607	0.203
	20-	31	31.3	68	68.7		
	30-	21	38.9	33	61.1		
	40+	10	50.0	10	50.0		
Age at onset of abuse:	<20	33	31.1	73	68.9	3.872	0.049*
	≥20	37	45.1	45	59.4		
Sex:	Males	62	37.1	105	62.9	0.008	0.931
	Females	8	38.1	13	61.9		
Residence:	Urban	45	34.4	86	68.6	1.537	0.215
	Rural	25	43.9	32	56.1		
Marital status:	Single	36	31.6	78	68.4	3.963	0.047*
	Ever married	34	45.9	40	54.1		
Education:	Illiterate	5	25.0	15	75.0	1.581	0.664
	Primary	14	36.8	24	63.2		
	Secondary	29	40.3	43	59.7		
	High	22	37.9	36	62.1		
Occupation:	Unemployed	15	35.7	27	64.3	1.766	0.622
	Manual workers	26	32.9	53	67.1		
	Employees & professionals	22	44.0	28	56.0		
	Students	7	41.2	10	58.8		
Number of abused drugs:	1-2	42	47.7	46	52.3	7.795	0.005*
	3+	28	28.0	72	72.0		
Type of first used drug:	Illicit drugs	45	33.8	88	66.2	2.248	0.134
	Licit drugs	25	45.5	30	54.5		
Injecting drugs:	Yes	23	27.4	61	72.6	6.308	0.012*
	No	47	45.2	57	54.8		
Type of relation:	heterosexual	-	-	102	86.5		
	Homosexual	-	-	3	2.5		
	Bisexual	-	-	13	11.0		
Condom use:	Never	-	-	79	66.9		
	Rarely	-	-	8	6.8		
	Occasionally	-	-	15	12.7		
	Always	-	-	16	13.6		

*Significant

Table (2): Distribution of studied drug users in relation to the practice of drug injection in relation to other variables

Variables		Drug injection				χ^2	P
		Non injecting (n=104)		Injecting (n=84)			
		n	%	n	%		
<u>Age in years:</u>	<20	12	80.0	3	20.0	4.546	0.208
	20-	55	55.6	44	44.4		
	30-	27	50.0	27	50.0		
	40+	10	50.0	10	50.0		
<u>Age at onset of abuse:</u>	<20	60	56.6	46	43.4	0.162	0.687
	≥20	44	53.7	38	46.3		
<u>Sex:</u>	Males	98	57.8	69	41.3	6.843	0.009*
	Females	6	28.6	15	71.4		
<u>Residence:</u>	Urban	65	49.6	66	50.4	5.681	0.017*
	Rural	39	68.4	18	31.6		
<u>Marital status:</u>	Single	68	59.6	46	40.4	2.197	0.138
	Ever married	36	48.6	38	51.4		
<u>Education:</u>	Illiterate	13	65.0	7	35.0	4.363	0.225
	Primary	24	63.2	14	36.8		
	Secondary	41	56.9	31	43.1		
	High	26	44.8	32	55.2		

Table (2): continue

Variables		Drug injection				χ^2	P
		Non injecting (n=104)		Injecting (n=84)			
		n	%	n	%		
<u>Occupation:</u>	Unemployed	15	35.7	27	64.3	15.792	0.001*
	Manual workers	53	67.1	26	32.9		
	Employees & professionals	23	46.0	27	54.0		
	Students	13	76.5	4	23.5		
<u>Number of abused drugs:</u>	1-2	66	75.0	22	25.0	25.926	0.001*
	3+	38	38.0	62	62.0		
<u>Type of first used drug:</u>	illicit drugs	83	62.4	50	37.6	9.238	0.002*
	Licit drugs	21	38.2	34	61.8		
<u>Having extramarital sexual relations</u>	Yes	57	48.3	61	51.7	6.308	0.012*
	No	47	67.1	23	32.9		

*Significant

Table (3): HIV/AIDS knowledge of studied substance users in relation to the practice of drug injection

Items of knowledge and attitude	Drug injection				χ^2	p
	Non injecting (n=104)		Injecting (n=84)			
	n	%	n	%		
<u>Methods of HIV infection:</u>						
Homosexuality	48	6.2	36	42.9	0.204	0.651
Heterosexuality	55	52.9	58	69.0	5.063	0.024*
Indictable drugs abuse	20	19.2	37	44.0	13.546	0.001*
Blood/blood products	39	37.5	50	59.5	9.041	0.003*
Vertical	3	2.9	2	2.4	FE	1.000
Mentioning incorrect method	15	14.4	6	7.1	4.773	0.092
<u>Magnitude of HIV infection in Egypt:</u>						
Not a problem	49	47.1	20	23.8	11.589	0.003*
Limited problem	34	32.7	41	48.8		
Serious problem	19	18.3	23	27.4		
Don't know	2	1.9	0	0.0		
HIV infected persons may look healthy	46	44.2	39	46.4	0.091	0.763
Care of being susceptible to infection	101	97.1	81	96.4	FE	1.000
Knowing methods of HIV prevention	54	51.9	69	82.1	18.760	0.001*
Need more information about HIV prevention	87	83.7	61	72.6	3.378	0.066
Ever been screened for HIV	8	7.7	13	15.5	2.837	0.092
Ever been screened for viral Hepatitis	38	36.5	44	52.4	4.742	0.029*
Having a friend suffering from HIV/AIDS	14	13.5	8	9.5	0.697	0.404

*Significant. For statistical analysis, groups don't know was excluded.

Table (4): Factors affecting total knowledge score among studied dependents

Variables		Percent of total knowledge score		t/F	p
		Mean	S.D.		
<u>Residence:</u>	Urban	60.31	17.98	4.917	0.001*
	Rural	46.73	15.67		
	Illiterate	44.09	17.76		
<u>Educational level:</u>	Primary	40.67	16.74	33.690	0.001*
	Secondary	56.69	14.83		
	High	69.91	12.30		
<u>Occupations:</u>	Unemployed	60.39	19.65	9.610	0.001*
	Manual workers	42.15	19.61		
	Skilled workers	47.33	15.11		
	Employees	64.21	9.07		
	Professionals	64.97	16.77		
	Students	65.24	17.38	0.200	0.842
<u>Number of abused drugs:</u>	Single	53.92	20.61		
	Multiple	53.00	19.91		
<u>Drug injection:</u>	Yes	62.01	16.22	4.047	0.001*
	No	51.49	18.86		
<u>Extramarital sexual relations:</u>	Yes	58.09	17.51	1.845	0.067
	No	52.99	19.64		

*Significant. Scheffe test: Educations: each two groups are significantly different except illiterate and primary. Occupation: manual and skilled workers are significantly different from other groups.

Table (5): Reasons related to risk perception of HIV infection in relation to practicing extramarital sexual relations

Risk perception of HIV infection	Extramarital sexual relations				χ^2	p
	Absent (n=70)		Present (n=118)			
	n	%	n	%		
<i><u>Reasons fro not perceiving the risk:</u></i>						
Don't know	13	18.6	17	14.4	0.568	0.451
No method of infection	30	42.9	9	7.6	33.168	0.001*
Not gay	6	8.6	17	14.4	1.393	0.238
Partners healthy, clean or of high social class	0	0.0	17	14.4	11.087	0.001*
No extramarital sexual relations	12	17.1	0	0.0	FE	0.001*
Taking care	1	1.4	6	5.1	FE	0.260
Always using condoms	0	0.0	5	4.2	FE	0.412
No blood transfusion	0	0.0	4	3.4	FE	0.298
Stopped sexual relations	0	0.0	4	3.4	FE	0.298
Being healthy and strong	0	0.0	3	2.5	FE	0.295
No AIDS in Egypt	1	1.4	2	1.7	FE	1.000
No contact with AIDS patients	0	0.0	3	2.5	FE	0.295
Not sharing contaminated articles	1	1.4	1	0.8	FE	1.000
Only one sexual partner	0	0.0	2	1.7	FE	0.530
No relations with foreigners	0	0.0	1	0.8	FE	1.000
Total	64	91.4	92	78.0	5.638	0.018*
<i><u>Reasons for perceiving the risk:</u></i>						
Having extramarital sex	0	0.0	19	16.1	12.538	0.001*
Injecting drugs	5	7.1	5	4.2	FE	0.504
Extramarital sex and drug injection	0	0.0	2	1.7	FE	0.530
During work as a coiffeur	1	1.4	0	0.0	FE	0.372
Total	6	8.6	26	22.0		

*Significant

DISCUSSION:

In many parts of the world, injecting drug use is the major mode of HIV transmission⁹. A reliable estimate of drug injection in Egypt remains absent.

The current study showed that females had more significant use of injections than males. This result is attributed to the Egyptian culture which accepts women who use injections but doesn't accept those who use alcohol or cannabis.

Injecting were more common in urban areas and in unemployed people. These results were logic as the availability of the injection are more in urban areas and the functional impact of injection dependence usually is more that's why many patients with injection dependence cannot work.

The current study showed that 68% of substance users who start substance below 20 years age had extramarital sexual relationship and this fact indicates that early use of drugs facilitates illegal sexual relations. Also patients who use three substances or more had more extramarital sexual relationships. It is a matter of debate whether the use of more substances lead to extramarital sexual relationships or extramarital relationships lead to use of more substances. Definitely both are true because the use of more substances lead to more cognitive disturbance and more tendencies to risky behaviors and also the setting of extramarital sexual relationships is

always associated with use of substances like alcohol and cannabis.

In the present study, injecting drugs was reported by 44.7% of the sample, out of them 42.9% reported sharing needles. The majority of them were injecting more than twice weekly. Moreover, the study showed that 52% of injectable drug users were screened for HCV while only 15% were screened for AIDS and this may reflect the acceptance of HCV testing by both patients and their doctors more than testing of AIDS which is more stigmatizing in Egyptian culture.

Eighty two percent of injectable drug users know how to prevent HIV however many of them are not screened for the disease and this may reflect an important issue which is the presence of dissonance between their knowledge and behavior.

Drug use has an intimate connection with HIV. The connection occurs when drugs are injected using contaminated injecting equipment. Furthermore, it is recognized that some drug use can lead to increased sexual risk behaviors which can also result in HIV transmission¹⁰. A study in Iran reported that around 20-25% of Iranian drug users admit having injected drugs¹⁰.

The observed higher risk of HIV among IDUs has been explained by the combination of different risk behaviors such as sharing of syringes and needles, no regular use of condoms, and contact with different sexual partners⁴.

¹¹. Actually, IDUs in general are known to be sexually active^{5,12}, and male IDUs who had sexual contacts with female sex workers (FSWs) reportedly have a higher HIV infection risk than IDUs who do not^{6,7,13,15}.

All over the world, ignorance, lack of knowledge, fear and denial have engendered serious and often tragic consequences, denying people living with HIV/AIDS access to treatments, services and support, as well as making it hard for prevention work to take place. The epidemic of fear, stigmatization and discrimination first described by Jonathan Mann (1987) has undermined the ability of individuals, families and societies to protect themselves and provide support and reassurance to those infected¹⁶. Despite increased prevention and care efforts in Middle East and North Africa countries over recent years, a self-perpetuation cycle of limited information, low awareness and lack of urgency has yet to be broken¹⁷.

The majority of our studied sample ever heard about HIV/AIDS with mass media the main source of information. However their knowledge of different methods of HIV infection was still defective and 11.2% mentioned incorrect methods of transmission. Their knowledge was affected by residence, level of education and occupation. Other studies in Egypt also identified newspapers, magazines and friends as important sources of information on HIV/AIDS¹⁸⁻²⁰.

Although the majority of studied sample reported much care of the possibility of being susceptible to HIV infection, and while more than 40% of them were ever screened for viral hepatitis, only 11.2% of them were ever screened for HIV infection. The same observation was reported for low testing of HIV among problem drug users in Greater Cairo²¹. This means that an epidemic of HIV infection among drug users which are one of the risky groups for HIV infection may pass undetected.

Knowing and accepting one's HIV status enables more informed planning for the future, including for one's dependents. HIV Voluntary Counseling and Testing (VCT) is one of the factors that help to reduce stigma and secrecy surrounding HIV/AIDS²².

AIDS is perceived as a disease of "others", whose life styles are considered "perverted"²³. In the present study, those who perceived the risk of HIV infection were only 17.6%. Among injecting drug users, risk of HIV infection was considered by 28.6% while among addicts with risky sexual behaviors those perceiving the risk of HIV infection were 22%. Among reasons for not perceiving the risk of HIV infection were having sex with apparently healthy partners, not being gay or not perceiving any method of transmission. The low risk

perception could be attributed to defective knowledge of the studied group concerning HIV infection.

There is direct connection between drug and substance use and HIV transmission. Injecting drug use was estimated to be directly responsible for over 5% of HIV infections worldwide. The use of recreational drugs, including alcohol, is also associated with unsafe sexual activity that can in turn result in HIV infection²³. The majority of new HIV infections in developing countries occur among young people aged 15-24 through unprotected sexual intercourse, with girls being particularly vulnerable²².

In the present study, 62.8% reported having extramarital sexual relations. The majority of them had more than one partner and 61% of them had sex the month prior to interviewing. Heterosexuality was the main type of sexual relations. However, condom was never used among 66.9%. The main reasons for non use of condoms were reported to be due to decrease of sexual pleasure, not perceiving any benefit of its use and no perception of risk of infections as partners are clean and healthy.

In the study among problem drug addicts in greater Cairo, 73% of the sample who were sexually active reported never used condoms²¹. A previous survey conducted in 60 developing countries including Egypt showed that awareness of condom as a method of contraception in Egypt was found among 68% but condom use was found among only 1% of the surveyed population²⁴. While perceived unreliability is often a problem, many other issues present greater barriers to overall acceptability of condoms and may explain this wide gap between awareness and utilization. Besides, many people did not believe they are at risk of STIs/AIDS. In addition, insufficient knowledge about the proper method of condom use and the place to obtain it was found to be a cause for underutilization^{25,26}.

A study among injecting drug users in Pakistan showed that only 17.5% of those who were sexually active had ever used condoms. They reported using condom for reasons of birth control and prevention of STIs²⁷.

Among studied sample the prevalence of self reported HCV and sexually transmitted infections was found to be significantly higher among those practicing drug injection or extramarital sexual relations. Like HIV infection, HCV is a major global public health problem. Because both HCV and HIV are blood borne viruses, analysis of HCV rates may provide insight into the potential for the spread of HIV virus within the study population. It is important to note that while both viruses can be transmitted through behaviors in which

infected blood and blood products are exchanges, it is thought that the possibility of sexual transmission of HCV is very low²⁷. A study among injecting drug users in Viet Nam showed a strong independent association between “sex with non-regular partners” and HIV infection among injecting drug users and suggests that sexual transmission is an important factor in fuelling the epidemic in this group, bias²⁸.

Studies suggest that underreporting the number of lifetime sexual partners is common. This is likely to apply to culturally inappropriate sexual behavior, which is associated with stigmatization, thereby creating reporting bias²⁹.

CONCLUSION

- The majority of drug users are young males, of single marital status and urban residence. Unemployment is high among them while the majority had secondary or higher education.
- In spite of presence of risky behavior for HIV infection (drug injection and unsafe sex), their perception of the risk of being infected is much low due to misconception that's why screening for HIV was much limited among them.
- Drug injection was found among 44.7% with needle sharing practices by 42.9%. extramarital relations were reported by 62.8% mainly with more than one partner and without condom among 66.9%
- Self reporting of Hepatitis C and B and sexually transmitted infection was high especially among addicts with risky behaviors.

REFERENCES

1. Joint United Nations Programme on HIV/AIDS: “HIV and AIDS related stigmatization, discrimination and denial: Forms, contexts and determinants”. UNAIDS Best Practice Collection, UNAIDS/00.16E, UNAIDS, Geneva 2000.
2. The Sixth International Congress on AIDS in Asia and the Pacific : “20 Years On: The Situation in Asia and the Pacific” Website of the Sixth International Congress on AIDS in Asia and the Pacific, 7 June 2001 at http://www.icaap.conf.au/news/200106_20_years.asp
3. U.S. Office of International Information Program: "U.S Annual Narcotic Report on North Africa and Middle East". U.S.A. Washington DC.23/A15. 2001:2-7.
4. Regional Office for the Eastern Mediterranean. “Men and AIDS – Men make a difference”. World AIDS Campaign 2000. Background Document. EMRO, WHO.
5. Joint United Nations Programme on HIV/AIDS. “Report on the Global HIV/AIDS Epidemic June 2000”. UNAIDS/00.13E – ISBN: 92-9173-000-9. UNAIDS, Geneva, p 7.
6. Ibrahim A, Ismail A, Hafez A, Magd H. "Prevalence of drug use, abuse and dependence in Abokhalifa, Ismailia". *Egypt. J. Comm. Med.* 1998; 15(1):12-16.
7. WHO. Middle East regional office: Periodical report about AIDS in the east of Mediterranean region. 1999; EMRO/C46/INF.DOC.5.
8. WHO. International Classification of Mental and Behavioral Disease: Clinical description and diagnostic guideline. 1992; ICD10, WHO, Geneva.
9. UNAIDS. “Drug Use and HIV/AIDS”. UNAIDS 99.1E. UNAIDS Best Practice Collection. 1999.
10. WHO. “Best Practice in HIV/AIDS and care for injecting drug users: The Triangular clinic in Kermanshah, Islamic Republic of Iran”. 2004; WHO-EM/STD/052/E/U/05.04/1000.
11. Des Jarlais D, Johnston P, Friedmann P, Kling R, Liu W, Ngu D, Chen Y, Hoang T, Donghua M, Van L, Tung N, Binh K, Hammett T. Patterns of HIV prevalence among injecting drug users in the cross-border area of Lang Son Province, Vietnam, and Ning Ming County, Guangxi Province, China. *BMC Public Health* 2005; 5(1):89.
12. Hien NT, Giang LT, Binh PN, Wolffers I. The social context of HIV risk behaviour by drug injectors in Ho Chi Minh City, Vietnam. *AIDS Care* 2000; 12(4):483-495.
13. AIDS Division Ministry of Health Vietnam. ADB Project JFPRREG- 9006: Result of Baseline Surveys in 5 provinces: Lai Chau, Quang Tri, Dong Thap, An Giang, Kien Giang. Hanoi, Vietnam; 2002.
14. Vanichseni S, Des Jarlais DC, Choopanya K, Friedmann P, Wenston J, Sonchai W, Sotharan JL, Raktham S, Carballo M, Friedman SR. Condom use with primary partners among injecting drug users in Bangkok, Thailand and New York City, United States. *AIDS*. 1993; 7(6):887-891
15. Tran TMT, Nguyen HT, Yatsuya H, Hamajima N, Nishimura A, Ito K. HIV prevalence and factors associated with HIV infection among male injection drug users under 30: a cross-sectional study in Long An, Vietnam. *BMC Public Health*. 2006; 6:248-257
16. UNAIDS. “Comparative analysis: Research studies from India and Uganda”.UNAIDS/01.49E. UNAIDS Best Practice Collection. 2000
17. Joint United Nations Programme on HIV/AIDS. “UNAIDS at Country Level Progress Report”. 2004; UNAIDS/04.35E.
18. NAP/UNFPA/UNAIDS Secretariat. “HIV/AIDS Prevention and care for Young People Using Health Centers”. 2004.

19. Shoke F. "Prevention of HIV/AIDS Programme for Secondary level Students". PhD Thesis in Childhood Studies from the Section of Psychological and Social Studies, Ain Shams University.2002. UNAIDS Best Practice Collection.
20. El-Zanaty F, Mahmoud, E. "AIDSCAP: Behavioral research among Egyptian university students". 1996; MEDTIC & FHI.
21. Elshimi T, Warner-Smith M, Oan M. HIV Risk Behaviors of Problem Drug users in Greater Cairo". United Nations Office on Drug and Crime Supported by UNAIDS Program acceleration Fund. Final Report, August; 2004.
22. UNAIDS. "HIV Voluntary Counseling and Testing: a gateway to prevention and care". UNAIDS/02.41E. UNAIDS Best Practice Collection. 2002.
23. UNAIDS. "India: HIV and AIDS-related Discrimination, Stigmatization and Denial". UNAIDS/01.46E. UNAIDS Best Practice Collection. 2001.
24. El-Mahdy M, El-Nawawy A. "Pattern of substance dependence in a sample of Egyptian addicts". Al-Azhar Med. J. 2003; 32(3-4):541-552.
25. Gardner R, Blackburn RD, and Upadhyay, UD. "Closing the condom gap". Population Reports, Series H, No 9. Baltimore, Johns Hopkins School of Public Health , Population Information Program, Apr, 1999
26. Curtis SL and Neitzel, K. "Contraceptive knowledge, use, and sources". In: Demographic and Health surveys comparative studies Calverton, Maryland, Macro International, Mar. 1996. No. 19.
27. UNODCCP. "Injecting drugs, HIV and Hepatitis C among Male Injecting Drug Users in Lahore". UNDCP and UNAIDS in Pakistan, December, 1999.
28. Tuan NA, Fylkesnes K, Thang BD, Hien NT, Long NT, Kinh NV, Thang PH, Manh PD, O'Farrell N. Human immunodeficiency virus (HIV) infection patterns and risk behaviours in different population groups and provinces in Viet Nam. Bulletin of the World Health Organization, 2007 January; 85 (1)
29. Buve A, Lagarde E, Carael M, Rutenberg N, Ferry B, Glynn JR. Interpreting sexual behaviour data: validity issues in the multicentre study on factors determining the differential spread of HIV in four African cities. AIDS2001; 15:S117-26.

Corresponding Author

Hosam F El-Sawy

Assistant professor of Neuropsychiatry-
Tanta University

E- Mail: houssam_elsawi@yahoo.com

Tel.: 0020127904167.