

## ORIGINAL ARTICLE

# PREVALENCE OF SEXUALLY TRANSMITTED DISEASES AMONG NEW FEMALE DRUG ABUSERS IN A REHABILITATION CENTRE

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The prevalence of sexually transmitted diseases (STD) among female drug abusers was studied by screening 130 new inmates of a rehabilitation centre. Data was collected using a structured questionnaire, physical examination and specimen collection for laboratory investigation at the Community Medicine Clinic of HUSM. The majority (64.6%) were Malays and self-confessed sex workers (77.7%). A high prevalence of syphilis (50.8%), hepatitis B (52.2%), moniliasis (23.8%), trichomoniasis (19.2%) and gonococcal vaginitis (8.5%) was noted. More than half of them harbour 2 or more STDs. Six subjects, of whom 5 were Malays, were HIV positive. The evidence indicates that female drug abusers need a thorough screening for STD followed by an aggressive treatment regimen. Since the majority of them were born Muslims, they should have access to spiritual counselling and rehabilitation, stressing on repentance, and adopting a compassionate and forgiving approach.

*Key words : Drug abuse, sexually transmitted diseases, rehabilitation, Malaysia*

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## Introduction

The drug abusers' profile in Peninsular Malaysia was predominantly male, single and in their twenties. About half of the total reported addicts were Malays, one in three were Chinese and Indians accounted for slightly more than 10% (1). The rehabilitation facilities available were mainly for males, until October 1988, when the establishment of a female rehabilitation centre was realized to cater for the rising needs. Prior to this, any female drug offender was incarcerated in a women's prison which has a special drug unit to deal with the problems of withdrawal and rehabilitation.

This study describes a screening exercise to detect sexually transmitted diseases (STD) among female drug abusers admitted to a rehabilitation centre in order to identify the socio-demographic characteristics and burden of STD among this

particularly high-risk group. The objectives were to improve rehabilitation efforts and to facilitate follow-up treatment of the diseases.

## Materials and Methods

All 130 newly registered inmates of a rehabilitation centre for female drug abusers were included in the study from May 1989 to July 1991. The physical examination and specimen collection for laboratory investigations were done at the Community Medicine Clinic of the Hospital Universiti Sains Malaysia. The data were compiled using a standardized collection form and kept by the investigators to safeguard confidentiality. Socio-demographic data were obtained by a structured questionnaire. Occupational groups were classified into 5 categories: sex workers, salaried workers, housewives, students and jobless. Sex workers

included those who worked in brothels, escort agencies, bar lounges, dance clubs and cabaret establishments and massage parlours. Salaried workers included those who were employed as cashiers, domestic helps, factory operators, shop and office assistants. Specimens for serology were taken for syphilis (with titre determination), human immunodeficiency virus (HIV) and hepatitis B virus. Swab specimens for culture to isolate *Neisseria gonorrhoea* were taken from high vaginal vaults, cervical os, rectum and oropharynx. Swab specimens were also taken for wet smear identification of *Candida albicans*, *Trichomonas vaginalis* and *Neisseria gonorrhoea*. Screening for *Chlamydia trachomatis* and anti-HBc (IgG and IgM) could not be carried out as these kits were not available in the laboratory at the time of the study.

## Results

The ethnic and age distribution of the 130 subjects screened is presented in Table 1. Among the ethnic groups, Malay has the highest proportion, followed by Chinese. The prevalence rate of female drug abusers in this study is calculated using the denominator of mid-year (1987) population estimate by ethnic group and sex of Peninsular Malaysia (2). Again it shows that Malay has the highest rate, followed by Indian.

The occupational distribution of the subjects is summarized in Table 2. Self-confessed sex workers made up 77.7 % of the subjects and of these, 72 (71.3 %) were Malays.

The prevalence of STD among the screened subjects is presented in Table 3. Positive serology for syphilis accounted for the high prevalence of 50.8

Table 1. Distribution of female drug abusers by age and ethnic group

Age (years)	Ethnic Group			Total	%
	Malay	Chinese	Indian		
10 – 19	10	1	0	11	8.5
20 – 29	42	15	5	62	47.7
30 – 39	29	15	8	52	40.0
40 – 49	5	0	0	5	3.8
Total	86	31	13	130	
%	66.2	23.8	10.0	100.0	100.0
Prevalence per 100,000 population	2.14	1.47	2.09	1.91	

Table 2. Distribution of female drug abusers by occupation and ethnic group

Occupation	Malay	Non-Malay	Total	No. of cases
	No. (%)	No. (%)	No. (%)	No. (%)
Sex worker	72 (71.3)	29 (28.7)	101 (100.0)	101 (77.7)
Salaried worker	8 (47.1)	9 (52.9)	17 (100.0)	17 (13.1)
Housewife	2 (50.0)	2 (50.0)	4 (100.0)	4 (3.1)
Student	2 (100.0)	0 (0.0)	2 (100.0)	2 (1.5)
Jobless	2 (33.3)	4 (66.7)	6 (100.0)	6 (4.6)
<b>Total</b>	<b>86 (66.2)</b>	<b>44 (33.8)</b>	<b>130 (100.0)</b>	<b>130 (100.0)</b>

Table 3. Prevalence of STD among female drug abusers

Type of STD	Number of cases	% of the sample	Comment
VDRL +ve	63	48.5	Active cases
TPHA +ve			
VDRL -ve	3	2.3	Treated cases
TPHA -ve			
VDRL Weak+ve	9	6.9	False positives
TPHA -ve			
HIV antibody +ve	6	4.6	Carriers
HBs Ag +ve	5	3.8	Carriers
HBe Ag +ve	2	1.5	Infections
Anti HBs	61	46.9	Infected but immune
Trichomoniasis	25	19.2	
Gonorrhoea	11	8.5	
N = 130			

Note: A subject may have more than one disease.

Table 4. Details of the HIV sero-positive cases

Age (years)	Ethnic group	Occupation	Needle sharing	Concurrent STD
30	Chinese	Prostitute	Yes	Anti-HBs
33	Malay	Prostitute	Yes	TPHA/VDRL +ve
30	Malay	Prostitute	Yes	TPHA/VDRL +ve Anti-HBs
23	Malay	Prostitute	Yes	Trichomoniasis
21	Malay	Prostitute	Yes	Anti-HBs Trichomoniasis
18	Malay	Housewife	Yes	Moniliasis

Table 5. Frequency of multiple STD infections among female drug abusers

Number of STD	Frequency	% of the sample
0	19	14.6
1	36	27.7
2	58	44.6
3	16	12.3
4	1	0.8

%. Weak reactive VDRL followed by TPHA negativity were considered as biological false positive, which is seen occasionally among drug addicts.

Hepatitis B infection presented as either seropositivity for HBsAg or HBeAg or anti-HBs and it also shows high prevalence at 52.2 %. Six of the subjects (4.6 %) showed evidence of having acquired HIV infection (Table 4). Five of them admitted sharing needles and acknowledged working as prostitutes. All the HIV seropositive subjects had one or more concurrent STD infections such as syphilis, hepatitis B, trichomoniasis and moniliasis.

Table 5 shows the frequency of multiple STD infections. The majority (57.7 %) revealed two or more concurrent STD infections. However, STD were not detected in 19 (24.6 %) of the subjects.

## Discussion

In this study, the prevalence rate of institutionalised Malay female drug abusers was high compared to other ethnic groups. Their preponderance in the sex trade placed them at high risk of contracting STD infections and particularly infection by HIV. Five out of six HIV sero-positives were Malays. Given the average latent period of 10 years before being admitted to the rehabilitation centre, the age of onset of drug abuse was probably in the teens and early twenties. Drug abusers needed money to sustain their habits on an increasing trend. Being female, sexual favour was a ready-made commodity for trade.

Female drug abusers should be singled out in the society's effort to plan strategy for prevention and rehabilitation. Although moral guidance and religious instruction are included as part of the rehabilitation regimen, there is still plenty of room for non-governmental organizations and Muslim Women missionary groups to participate. In contrast to non-Muslims, the rehabilitation process should

stress on spiritual counselling and repentance (*taubat*). The approach should be one of compassion and forgiving. Muslim intellectuals need to address this issue as part of the effort to save the *ummah*. Preventing recidivism in drug addiction is always a problem but expectation of success in rehabilitation should also be realistic.

A high prevalence of reactive syphilis serology indicated that the subjects were in the latent phase of the infection. As a comparison, Ramachandran and Ngeow (3) reported seropositivity to syphilis as 13.6 % among prostitutes in Kuala Lumpur. This may signal a re-emergence of syphilis and reflecting a sizeable reservoir of the infection in the sex trade. On the other hand, it could represent a peculiar finding among drug abusers. Hutchinson *et al.* (4) acknowledged intravenous drug use and they were more likely to test positive for HIV infection.

The prevalence of hepatitis B serology markers among these subjects was also high. Intravenous drug abuse is an established fact in the transmission of the hepatitis B virus. Gan *et al.* (5) concluded that multiple sexual partners as a factor increased the chances of acquiring hepatitis B infection. Both factors could be operational among these subjects to produce a high prevalence.

The fact that there were HIV positive female drug abusers who work as prostitutes could set the stage for an increasing heterosexual transmission of HIV infection. Kreiss *et al.* isolated, by culture, HIV from genital ulcers (6). Hook also concluded that syphilis is a risk factor for HIV acquisition (7).

Candidiasis and trichomoniasis have high prevalence in these subjects as expected. These infections are cited as the most common STD among sexually active women of low socio-economic status (8). The low prevalence of gonorrhoea compared to previous study (3) and the absence of extra-genital infection maybe due to widespread clandestine usage of antibiotics and this needs further study. More than

half of the subjects harbour two or more concurrent STD infections. Routine screening must be carried out and they should be treated aggressively as part of the rehabilitation process to regain physical, psychological and mental well-being.

It is shown in this study that drugs, STD and HIV infections are closely linked especially in the female victims. The main strategy of prevention is educating the masses and these issues are treated more often than not as separate entities. The existing model promotes condom usage if one must expose oneself, and preach avoidance of random sex (implicit encouragement if the partner is known). Drug abuse, STD and HIV may be treated as a closely linked issue for greater impact in educating the masses. Since Muslims are as vulnerable, if not more, to these temptations, the Muslim public should be exposed to the firm message of Islam against adultery and fornication (*zina*) and drug abuse (9).

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