Ten Year Follow - up of Heroin Abusers in Bahrain

A. Nabi Derbas, M.K. Al-Haddad and V.S. Mathur

A cohort of 52 Bahraini male heroin abusers attending the Drug Treatment and Rehabilitation Unit were followed up for ten years. The majority were young, single, unemployed, unskilled labourers, living with their parents in urban areas and had primary school education. The mean age was 24 years. At the end of the study period, 28.8% stopped abusing drugs and 44.3% were still abusing heroin while 15.4% shifted to alcohol and the remaining 11.5% resorted to multiple drug abuse other than heroin. Of the total sample 13.5% tested positive for human immunodeficiency virus (HIV) and 15.4% for hepatitis B.

(Egypt.J.Psychiat., 1998, 21 :249 - 255).

INTRODUCTION

Since 1987 the treatment policy of the drug rehabilitation unit in bahrain stipulates that treatment of drug abusers has to initially be on in-patient basis, during that period the severity of the withdrawal symptoms are charted for each patient according to a locally devised scale, only those with moderate to severe withdrawal symptoms are given methadone treatment which again has to be gradually withdrawn till complete weaning off prior to discharge which takes place in 3 - 6 weeks time. No methadone is given on out - patient basis.

SUBJECTS AND METHODS

This is a ten year follow up study of fifty two bahraini heroin abusers who continued attending the Drug Treatment and Rehabilitation Unit at the psychiatric Hospital, Bahrain from july 1983 to December 1993. During this period 443 cases attended this service. The data was collected by the senior residents working under the supervision of a consultant in two identical structured proformas containing the details of the drug history. The first proforma was completed at the time of the first contact with the service while the second was used for recording the follow up till the last contact. The proformas contained details regarding demographic features such as age, sex, marital status, nationality, education, employment status and social class. The latter was decided on the basis of the recommended criteria of the central statistics Bureau of the State of Bahrain (1989) Subjects included in the study were diagnosed as heroin abusers according to ICD - 9 criteria. The withdrawal symptoms of heroin were classified according to a locally structured Opioid Objective Withdrawal Manifestation scale (ooMnS) which classified the withdrawal symptoms into mild, moderate and severe as follows:

Mild: Rhinorrhoea, itching of nose, sneezing, frequent yawning flushing of face and neck.

A. Nabi Derbas, M.K. Al- Haddad and V.S. Mathur
1-Senior Registrar, Psychiatric Hospital, Ministr of Health, Bahrain.
2- Consultant Psychiatrist, Psychiatric Hospital, Ministry of Health, Bahrain.
3- Professor, College of Medicine & Medical Sciences, Arabian Gulf University, Bahrain.

Moderate: Dilated pupils, increased systolic/ diastolic BP, hyperpyrexia, tremors and muscle twitches, perspiration, goose skin and diarrhoea.

Severe: Repeated vomiting, continuous diarrhoea dehydration and deterioration of vital signs.

Criminal history including arrest and imprisonment was recorded, as well as complications following drug abuse such HIV, hepatitis B and psychiatric illnesses. The various diagnoses of psychiatric complications were based on the criteria set in ICD - 9. The present status in relation to drug abuse refereed to whether the person had abstained, was still abusing heroin or had resorted to abuse of other drugs. History of drug or alcohol abuse in the family was also recorded. The coded data in the proforma were entered into the computer using a specially formatted data entry programme using D- BASE III and was analyzed using SPSS- PC programme.

RESULTS

1. Age and Marital Status

All the 52 cases were Bahraini males. Their age ranged between 17 to 46 yeas with a mean of 24 years. The majority (84.6%) were 20 years old and below as shown in (Table 1). The earliest age at which the drug abuse started was 13 years. All cases had their first exposure before the age of 27 with a mean of 17.98 $\pm$ SE 0.41 years. The majority of the cases: 69.2% were single while 23.1% were married, and the remaining 7.7% were divorced. of the married 83.3% had abstained while 80.8% of the single and 100% of the divorced were still abusing drugs.

2. Education. Social Class and Employment Status

Fifty (96.2%) cases received education ranging between primary to a college level and the remaining 3.8% knew how to read but write. Of the educated group 42.3% had primary, 23.1% intermediate and 21.2% secondary education while the remaining 9.6% had college education. The majority (82.6%) came from social class IV while the remaining three classes had an equal distribution of 5.8% each. Unemployment was in 59.7% of the sample while 36.5% were employed and the remaining 3.8% had premature retirement.

3. Living Arrangement and Residence

The majority (67.3%) were staying with their parents and 25% with their spouses. Two (3.8%) were living alone and another 3.8% with other relatives. All but one were residing in areas.

4. Withdrawal Symptoms and Number of Hospital Admissions

As would be seen from Table 2 the majority 69.2% (N= 36) showed sever withdrawal symptoms of repeated episodes of diarrhoea and vomiting. The number of hospital admissions for detoxification and rehabilitation ranged from nil to 19 (Table 3). Four cases required 12, 15, 16 and 19 readmissions. It was observed symptoms ($r= 0.60$, $N = 52$, $P= < 0.001$).

5. Present State of Drug Abuse

At the end of the study 28.8% have stopped abusing drugs while 44.3% were still abusing heroin, 15.4% abused alcohol alone and the remaining 11.5% were users of multiple drugs.

6. Police Record and Arrest

All were arrested for drug related offences and all but two received jail sentences.

7. Methods of Drug Abuse

All started heroin abuse by inhaling

Table 1
Showing the Age at which the Subject Began Abusing Heroin

Age in Years	Frequency	%	Cum. %
13	1	1.9	1.9
14	4	7.7	9.6
15	6	11.5	21.2
16	9	17.3	38.5
17	6	11.5	50.0
18	2	3.8	53.8
19	9	17.3	71.2
20	7	13.5	84.6
21	2	3.8	88.5
22	3	5.8	94.2
23	1	1.3	96.2
25	1	1.9	98.1
27	1	1.9	100.0
Mean age 17.981+ SE 0.409			

Table 3
Showing the Number of Times Admitted for Detoxification

No. Of Cases	No. Of Re- Admissions
4	Nil
28	1-5
16	6-10
4	11-19

Table 2
Swverity of Withdrawal Symptoms

	Frequency	%
Mild	4	7.7
Moderate	12	23.1
Severe	36	69.2

Table 4
Showing the noumber and percentage of Cases who Required Medication for psychiatric Complications

	No. Of Cases	%
Depressive Illness	25	48.2
Anxiety Disorder	2	3.8
Confusional State	4	7.7
Schizophrenc Disorder	3	5.7
Total	34	65.4

or sniffing then shifted to intravenous rout. the majority (69.2%) shared needles with other heroin abusers.

8. Complications

(a) HIV & hepatitis B

Eight cases tested positive for hepatitis B. Seven of these also tested positive for HIV. A strong positive correlation ($r = .52$, $N = 52$, $P = < 0.001$) was observed.

b) Psychiatric Complications

Thirty - four patients required medication for psychiatric illness which included depressive illness, anxiety disorder, confusional state and schizophrenic disorders (Table 4). The largest percentage (48%) suffered from depressive illness.

9. Family History of Drug Abuse:

Eighteen of the 52 cases gave a positive family history of alcohol abuse. None of the parents abused other drugs including heroin.

DISCUSSION

1. Age and Marital Status

The patients included in the present study were all Bahraini males since only three Bahraini females have been treated at the psychiatric Hospital for drug abuse till this date (Annual reports, psychiatric Hospital, Bahrain 1983 - 1990, Annual Reports, Ministry drug abusers were not included in the study as their say is unlikely to be ten years in bahrain.

The mean age of drug abusers was 24 years. 84.6% were 20 years old and below, showing that the drug abuse started at an early age. Al Kubaisy et al. in 1990 from the neighbouring Emirate of Qatar (1990) reported the mean age 28 years, but this can be explained workers which increased the mean age. Stimson et al (1978) and Coltrel et al (1985) reported 17.1 and 21 years respectively, which were closer to our figures. 69.2 % of our study group were single which is understandable due to younger age group compared to 72 % in Edwards and Goldie (1987). The proportion of subjects that got married (23.1%) suggest a shift towards stability, this is further supported by the fact that only 7.7% had broken marriages, a rate compatible with the general divorce rate on this island correlated positively to abstinence form drug abuse, since 83.3% of the married cases managed to abstain from the drug, while only 19.4% of the single managed to do so. All the divorced cases continued their abuse (7.7%).

The higher number of single status 69.2% has to be against the light of their young age since 84.6% were twenty years old and below. this compares favourably with the 72% reported by Edwards and Goldie (1987).

2. Education. Social Class and Employment Status

A good number of the studied population 42.3% had primary education only compared to 19.5 among the general population, a similar pattern is also true for the intermediate level. 23.1% against 12.5% in the general population. The secondary school 1.2% and college education 3.8% have a lower representation than that of the general population which is 12.7% and 9.6% respectively. The percentage of the illiterates is markedly reduced in the drug abuse population; 3.8% compared to the general population 12.2%. The higher representation of primary education and to a less extent intermediate level complements the previous finding of the young age group (84.6% below the age of 20), indicating that this population have left school early and also

started the drug abuse at that tender age. Those who continued to secondary school and college education are far less, again indicating a selective process of drug abusers being the school leavers. The illiteracy rate is understandably very low among the drug abusers 3.8% compared to general population 13.5%, again mainly because of their young age; the higher illiteracy rate in the general population is mainly in those who passed the age of 50 and 60 years, mostly females (Statistical Abstract, state of Bahrain, 1989).

Social Class:-

The majority of our patient population (82.6%) cane from social class IV which is very close to that reported by Edwards and Goldie (1987) who observed that 97% of his drug abuse population came from social class III - IV.

Employment:-

The high unemployment rate 59.7% is compatible with other studies, Edwards and Goldie (1987) reported 88% their sample having unstable work with long periods of unemployment. However 31.3% of drug abusers in our study kept regular jobs therefore subtracting from the public image that all drug abusers end up as unemployed layabouts. This again compares favourably with other studies of Zacune et al. 1969, Stimson et al. 1978 and Hartnoll et al. 1980.

3. Living Arrangement and Residence:-

The majority (67.3%) were saying with their parents. This is understandable since the vast majority are single 69.2% and below 20 years of age 84.6%. It is a cultural norm that single and sometimes married couples stay in the family home.

4. Withdrawal Symptoms and Number of Hospital Admissions:-

Withdrawal symptoms were correlated positively to age ($r = 0.4$, $P < 0.01$); the younger the age group the more severe the withdrawal symptoms, probably reflecting severe form of drug dependence. Those who abstained for long duration showed less severe withdrawal symptoms ($R= 0.47$, $P< 0.001$).

The withdrawal symptoms were severe in nature in all cases who tested positive to HIV and hepatitis B probably reflecting more frequent intravenous drug use and hence higher chance for drug dependence.

5. Present State of Drug Abuse

Ten years later 28.8% have stopped abusing drugs completely which compares favourably with stimson et al (1978) who reported 31% abstinence after 7 years and coltrel et al (1985) reported 50% abstinence after 11 years follow up.

Those who were still abusing heroin alone were 44.3% in addition to 11.5% abusing multiple drugs, making a total of 55.8%. Stimson et al (1978) reported a percentage of 48%, while coltrel et al (1985) reported 34.9% after 11 years.

The remaining 15.4% shifted to alcohol alone replacing one drug abuse with another.

6. Police Record

All of them were arrested by police and 96% received jail sentence for repeating the offence of drug possession. Edwards and Goldie (1987) in their 10 years follow up reported 58% of their cohort to have committed drug related offences. The higher rate in Bahrain is understandable taking in consideration the small size of the island (40 x 60 miles) and the limited population 350.000 (1991 census). The relationship between drug abuse and crime is complex; drug abuse may be part and parcel of the chaotic life style of drug who of-

ten offend inorder to obtain money for drugs.

7. Methods of Drug Abuse and Complications

All patients shifted to intravenous use after a period of oral use. The majority 69.2% shared with others. Eight patients had hepatitis B, seven of whom tested positive for HIV. Of the seven patients with HIV five formed one group and were sharing needles, three members of the group were brothers.

In a recent publication Al - Haddad et al (1994) have reported that 21.2% of the intravenous drug abusers tested positive. Our figure of 13.5% reflects the incidence which existed around 1985.

The psychiatric complications were found in 65.4% of patiens, the majority for depressive illness (48.2%). Ross et al (1988) found a similar percentage as 65% of his group had current mental disorder in addition to substance abuse. Regier et al (1990) also found that among drug abusers who sought mental health treatment during a six - month period 64% had current co - existing mental disorders.

8. Family History of Drug Abuse

Although the fathers of some patients indulged in alcohol abuse themselves (15.4%) none of them have used heroin or other drugs. Heroin was introduced to this country in the early eighties, while alcohol has been available for a longer time.

Conclusion and Recommendations

In conclusion, the study shows that most of heroin abusers in behrain are unemployed, young single males who come from the urban areas. The hazard of HIV infection and hepatitis in relation to needle sharing need not be re - emphasized. The young age has an important implications for the spread of infection to the general population through sexual activity and contaminated blood. A public health education programme should be targeted towards this age group and should include elementary, secondary schools and college students. Such campaign should take into consideration cultural values and the attitude of Bahraini people related to matters that are considered private or a social taboo.

The treatment outcome in our patients seems to be comparable to many centres abroad and indicates that outcome of opiate dependants is not as gloomy as is often thought.

It is our recommendation that a follow up study of those who stopped attending the unit be conducted and compared to the present one.

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متابعة متعاطى الهيروين بعد عشرة سنوات فى البحرين

قام الباحثون بدراسة ومتابعة متعاطى الهيروين فى مركز للعلاج والتأهيل من الإدمان – وأظهرت الدراسة أن حوالى ٢٨,٨٪ من هؤلاء قد توقفوا عن تعاطى الهيروين بينما استمر فى تعاطيه ٤٤,٣٪ وقرر ١٥,٤٪ من العينة أنهم تحولوا لتعاطى الكحوليات بينما لجأ ١١,٥٪ إلى تعاطى عقاقير مختلفة غير الهيروين. وأظهرت نتائج التحاليل المعملية أن ١٣,٥٪ كانت تحاليلهم إيجابية لفيروس نقص المناعة المكتسبه و ١٥,٤٪ للإلتهاب الكبدى ب.