

# A Preliminary Survey of Drug Dependence in the State of Penang, West Malaysia.

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## Introduction

THERE is much current interest in the problem of drug abuse in Malaysia. Though much has been said, little is known about the actual extent and pattern of drug dependence in the country. Experts are divided in their views. Some contend that the threat at present is minimal (Wagner & Tan 1971). Others (Mahadevan 1970) feel that it is rapidly getting out of hand, and that firm measures are warranted. It was in the midst of this controversy that the Steering Committee on Drug Addiction in Penang decided to make an attempt to study the problem in their own community.

This committee, comprising of members from the legal and medical profession, education and social welfare officials, representatives from the Police, Customs, Chemistry and University Departments, was formed in September 1970 following a public forum on Drug Addiction. The author served on the Committee as a representative of the Malayan Medical Association. It was evident to all members at the beginning that an accurate epidemiological survey was not possible. The committee then decided to confine its initial investigation to the population of the General Hospital and Prison. Both these institutions are situated in Georgetown, the state capital.

## Area of Inquiry

The State of Penang comprises of the island, Pulau Pinang and part of the mainland known as Province Wellesley. It covers an area of nearly 400 sq. miles and has a population of about 800,000 (1970 census) comprising of 55% of Chinese, 30%

Malays, 12% Indians and 3% others. The capital, Georgetown is situated on the island itself. The mainland is accessible by ferry.

## Method, results and discussion

The study may be conveniently divided into two sections: A—Hospital Inquiry and B—Prison & Police Survey.

### A. Hospital Inquiry Method

The case notes of all admissions to General Hospital Penang from 1st January 1968 to 31st December 1970 with a diagnosis of Drug Addiction (Code: 316) were obtained. The following data were extracted: sex, age, race, occupation, marital status, education, reason for referral, previous police record, major drug of addiction, source of influence and previous attempts at withdrawal treatment.

## Results

### (i) Observed Trend in Admissions for Drug Addiction from 1.1.68 — 31.12.70

Table 1(a)  
No. of Cases/Year

Year	1968	1969	1970	Total
No. of Drug cases	21	34	57	112
Total No. of Admissions	23730	26495	24696	
% of yearly Admissions	.09	.14	.22	

There is a significant increase in the number of cases admitted with a diagnosis of drug addiction between 1968 and 1970.

	1968	1969	1970	Total
Opium/Morphine	15	25	30	70
Heroin	3	7	20	30
Marijuana	0	1	2	3
Pethidine	2	2	1	5
Amphetamine	0	0	1	1
Alcohol	1	1	1	3

The gain was most marked in the case of heroin addicts. The most common drug of abuse among the patient population during this period was opium and morphine (63%) followed by heroin (27%).

**Cultural Aspects**

**Table 2**  
Type of Drug/Race

	Chinese	Malay	Indian	Others
Opium/Morphine	48	10	10	2
Heroin	22	5	2	1
Marijuana	0	2	1	0
Pethidine	5	0	0	0
Amphetamine	0	0	0	1
Alcohol	0	0	3	0
Total	75	17	16	4

The addicts admitted for treatment were predominantly Chinese (67%). This is not surprising as the Chinese comprised 58% of admissions for the three year period. In this ethnic group, the types of drug abused were opium/morphine (64%), heroin (29%) and pethidine (6%) and no cases involving other types were found. There were only three cases of marijuana dependence (2.5%) and of these two were Malays and one Indian.

(iii) **Age Factor**

**Table 3(a)**  
Age at time of referral

17-19	20-29	30-39	40-49	50-59	60+	N.K.
3	39	24	15	9	19	3

The largest number of admission were in the 20-29 age group.

**Table 3(b)**

	Under 30	30-49	Over 50	Age not known
Opium/Morphine	17	23	27	3
Heroin	21	9	0	0
Marijuana	2	1	0	0
Pethidine	0	5	0	0
Amphetamine	1	0	0	0
Alcohol	1	1	1	0
Total	42	39	28	3

Among the heroin users, 70% were under 30, whereas in the opium/morphine category, the largest number of cases (39%) were over the age of 50.

(iv) **Sex, Marital Status, Occupation & Geographical Distribution**

**Table 4(a)**

Sex	
Male	Female
110	2

Except for two housewives, all the cases were male. Both the females were dependent on Opium.

**Table 4(b)**

Marital Status at time of referral	
Married	Single
47	65

58% of patients were unmarried.

**Table 4(c)**

Job Status at Time of Referral					
Employed		Unemployed	Housewives		
41		69	2		
Special grade					
I	II	III	IV	V	
0	5	2	22	12	

62% of cases were unemployed on admission. Among the employed, none were in Social Grade I, 17% in Social Grade II & III, and 83% in Social Grade IV and V.

**Table 4(d)**  
Geographical Distribution

Within city (Georgetown) Limits	Outside city within State (Penang)	Outside State
98	10	4

84% of patients came from within the city limits of Georgetown, the State capital.

(v) **Source of influence and reasons for wanting treatment**

**Table 5(a)**

Source of influence	
1. Influence by friends	30
2. Seek Medical Relief	5
3. Medical complication	3
4. Not known	74

27% blamed their friends as the initial source of influence in their addiction.

**Table 5(b)**

Reasons given for wanting treatment	
1. Patient wants to give it up	40
2. Withdrawal symptoms	17
3. Economic reasons	12
4. Not known	11
5. Admitted for Medical/surgical reasons	17
6. Admitted for Psychiatric reasons	11
7. Referred from the courts	4

56% stated that they wanted to give it up on admission. Of the 17 cases (15%) that were admitted for medico-surgical reasons, three were pethidine addicts presenting with abdominal pain. Of the remainder, all of whom were opium/morphine addicts, 9 were admitted on account of debility and malnutrition and 5 for investigation of acute abdomen which later turned out to be withdrawal symptoms.

(vi) **Duration of addiction on admission**

**Table 6**  
**Type of Drug/Duration of Addiction**

	8/		1-	3 yrs.	Dura- tion not known
	12	12 yr.			
Opium/ Morphine	2	4	18	49	6
Heroin	3	9	14	3	0
Marijuana	1	0	5	4	0
Others	0	0	3	6	1

Compared to others, heroin users tended to seek medical assistance at an earlier stage of their addiction.

**Discussion**

The results of this inquiry have to be considered in the context of a biased hospital population, though it may be claimed that the trends observed are for a fixed bias over a period of three years. We have found that during this time, there was an increasing demand for medical treatment of drug dependence. The rate of increase was most marked for heroin addicts and the predominant problem involved the narcotic group of drugs (heroin, opium, morphine & pethidine) which together comprised 80% of the total number of cases admitted.

That the largest number of cases were between the ages of 20 and 29 and that the majority in this group were heroin addicts merits concern. This was the pattern observed in developed countries when drug addiction came to be recognised as a serious social problem. (Second Brain Committee Report 1965).

It may also be inferred that the addict who comes to the notice of hospital authorities in Penang is almost always male, an urban dweller and often unemployed or in the lower income group. About a quarter were influenced by friends in the beginning and roughly one third voluntarily requested withdrawal treatment.

Marijuana, alcohol and amphetamine dependence did not appear to be serious problems in the community judging from hospital data alone. It is interesting to note however, that all the admissions involving these three drugs were for psychiatric reasons. In the case of marijuana, all three cases were regular users of over 2 years duration. They presented with toxic hallucinatory psychosis and their condition resolved within one week on treatment with phenothiazine. The alcoholics presented with paranoid psychosis, depression and delirium respectively. The solitary case of amphetamine addiction was admitted on account of paranoid psychosis.

**B. Prison and Police Survey I Prison Data**

Prior permission was obtained from the Superintendent of Penang Prison to conduct this inquiry. All inmates serving sentences for drug offenses were interviewed. Their co-operation was voluntary and no refusals were encountered. The interviews were conducted by two members of the Steering Committee with the assistance of a group of undergraduates from the University of Penang. The survey began in February, 1971 and was completed by July, the same year. All the cases in this study were made (there were no female cases) and a total of 81 in-mates were interviewed.

**Result**

(i) **Cultural and Age Factors**

**Table 7(a)**  
**Race/Type of Drug**

Race	Type of Drug				Total
	Mari- juana	Mor- phine/opium	Heroin	Others	
Malay	13	5	4	3	25
Chinese	9	5	12	2	20
Indian	14	4	4	2	24
Others	1	2	1	0	4
Total	37	16	21	7	81

Convictions for marijuana (45%) and heroin (26%) formed the majority of cases. Drug abuse of the marijuana type was more common among the Indians and Malays, whereas the Chinese appeared to favour heroin or opium.

**Table 7(b)**  
**Age/Type of Drug**

Age Group (years)	Type of Drug				Total
	Marijuana	Morphine/opium	Heroin	Others	
17-19	2	0	3	1	6
20-29	23	5	13	3	44
30-39	10	10	4	1	25
40-49	2	1	1	2	6

The largest number of cases (54%) fall within the 20-29 age group, and this pattern was repeated when heroin and marijuana cases were considered separately.

**(ii) Educational Level & Income**

**Table 8(a)**  
**Education Level/Drug Type**

Education Level	Type of Drug				Total
	Marijuana	Morphine/opium	Heroin	Others	
Illiterate	4	3	1	2	10
Primary	23	12	13	4	52
Lower Secondary	7	1	6	1	15
Upper Secondary	2	0	1	0	3
College/University	1	0	0	0	1

77% were illiterate or received only primary education, 18% had lower secondary education, and 5% had completed upper secondary or college/University education.

**Table 8(b)**  
**Income level/Drug type**

Income Level	Drug type				Total
	Marijuana	Morphine/opium	Heroin	Others	
Less than average (poor)	24	9	10	4	47
Average	3	3	5	0	11
Above average	5	2	3	1	11
Rich	1	1	2	2	6
Don't know	2	0	0	0	2

The poor (less than average) income group comprised 58% of cases.

**(iii) Reasons for taking drug**

**Table 9**

Reasons for taking drug	Drug type				Total
	Marijuana	Morphine/opium	Heroin	Others	
Influence by friends	17	8	14	4	43
Seek relief from worries	6	3	1	1	11
Medical reasons	2	0	1	0	3
Increase sexual potency	1	1	0	0	2
Work better	1	0	0	2	1
Others	9	3	5	2	19

More than half (53%) cited their friends as a major source of influence.

**(iv) Attitude towards Law Enforcement**

**Table 10**

Attitude Toward Law Enforcement	Drug type				Total
	Marijuana	Morphine/opium	Heroin	Others	
Taking drugs should be legal	18	2	4	4	28
Taking drugs should be illegal	17	13	17	2	49
Don't know	1	0	0	1	2

87% of morphine/opium and 81% of heroin addicts were in favour of legal restriction. The marijuana users, however were about equally divided in their opinion.

**(v) Type of Assistance sought**

**Table 11**

Type of Assistance Sought	Drug Type		
	Morphine/opium	Heroin	Others
Private Doctor	1	4	0
Hospital	4	7	2
Friend/relative	1	4	1
None	7	5	0
Total	13	20	3

About 75% of heroin addicts had sought assistance for their addiction, mostly from hospital or private practitioners. None of the marijuana users felt the need for assistance of any kind.

**II. Police Data:** The Criminal Investigation Department in Penang provided the committee with data on all cases charged with offences under the Dangerous Drug Act (No: 30 of 1952) from January 1968 — December, 1971. For ethical and security reasons, only information on the type of drug abused, race and age were made available. The total number of cases amounted to 431.

**Results**

**(i) Age and Cultural Factors**

**Table 12(a)  
Age/Drug Type**

Age	Drug type				Total
	Marijuana	Morphine/opium	Heroin	Others	
Under 16	5	1	4	0	10
17-19	19	1	13	0	33
20-29	80	8	92	0	180
30-39	50	12	14	0	76
40-49	20	11	5	0	37
Over 50	24	71	0	0	95
Total	198	104	128	1	431

Like the jail figures, the predominant drug of abuse was marijuana (46%), followed by heroin (30%) and opium/morphine (24%). The largest number of cases (42%) were in the 20-29 age group and in this category, the commonest drug of addiction was heroin (51%) followed by marijuana (44%). There was a significant number of cases (23%) over the age of 50. Opium (78%) was the main drug of abuse in this group.

**Table 12(b)**

Race	Drug Type				Total
	Marijuana	Morphine/opium	Heroin	Others	
Malay	80	2	19	1	102
Chinese	28	100	93	0	221
Indian	79	2	7	0	88
Others	11	0	9	0	20
Total	198	104	128	1	431

Malays and Indians together comprised 80% of the marijuana users, whereas the Chinese formed 96% of the Morphine/Opium group and 73% of the heroin group.

**Discussion**

The prison and police survey is largely a prevalence study on a biased population. Assuming that factors such as the chances of arrest are considered equal for all types of illegal drugs, marijuana appears to be the commonest drug abused in the catchment population. There appears also to be a distinct cultural bias in the choice of illicit drugs, with Malays and Indians favouring marijuana and the Chinese preferring the opiate group.

Narcotic addicts as opposed to marijuana users tended to favour the implementation of legal control. The need for control may be interpreted as the need for an additional prop to prevent relapse, and to a certain extent reflects the severity of the addiction in narcotic cases. It is also the opiate abusers who frequently solicited medical attention and the results of the hospital study support this observation. It may be pertinent to suggest that in the planning of a campaign against drug abuse — singular attention should be given to facilities for the control and treatment of narcotic addiction in general and heroin in particular. Preventive measures, e.g. education, would be most usefully directed at the under 20 age group, before they enter the high risk age between 20-29.

Lastly, both offenders and the patient population show similarities in their low social status and level of income. Judging from reports in developed countries, (Faris and Dunham 1939), it is not the poverty itself but poverty in socially disorganised urban areas which is the important factor.

**Summary:**

Data on 112 hospitalised drug addicts and 512 (81 convicted, 431 charged) drug offenders were studied by members of the Steering Committee on Drug Addiction in Penang. Their main findings were:—

- (1) There is an increasing demand for medical treatment of drug abuse, mainly from narcotic users, who favour anti-narcotic legislation and who are predominantly Chinese.
- (2) The largest number of drug addicts fall within the 20-29 age group. Most heroin addicts are under 30, while opium/morphine addicts are generally over 50.
- (3) Characteristics found among drug addicts in this study are that they are almost exclusively male urban dwellers, often single with poor educational attainment and of low socio-economic status. Friends were often blamed as the cause of their addiction.

- (4) Marijuana abuse is common and occasionally, transient psychotic reactions are encountered among chronic users.
- (5) Alcohol, amphetamine and barbiturate abuse do not appear to be serious problems in the community studied.
- (6) A multidisciplinary approach to the study of drug dependence is advisable.

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