

Distribution of Drug-Related Problems Among London Casualty Departments

By A. HAMID GHODSE and NIGEL S. B. RAWSON

A survey of patients with drug-related problems seen in London casualty departments during the course of one month revealed 1,706 separate incidents. In 477 cases the patients were dependent on drugs, and more than 40 per cent were dealt with by only five hospitals, all in the West End of London. The remaining 1,229 incidents involved non-dependent patients who had taken a drug overdose, and these cases were distributed more evenly between hospitals all over the Greater London area. The implications of this study for service planning and for further monitoring of the patterns of drug misuse are discussed.

Introduction

For many years the West End of London has been regarded as the heart of the capital's drug scene and as the centre of illicit drug dealing (Connell, 1965; Scott and Willcox, 1965; Anumonye and McClure, 1970; James, 1971; Gaber, 1973; Stimson, 1973). Piccadilly Circus in particular is known as an area where many arrests are made for drug offences (Bean, 1971) and where addicts tend to congregate (Stimson, 1973). Circumscribed geographical areas within Greater London have been the subject of investigations into drug misuse (Randall, 1969; Murphy *et al.*, 1970; O'Sullivan, 1972), but no study of the geographical distribution of drug-related problems in the whole of London has ever been carried out. Such a study is of potential value in identifying areas in which the number of drug-related problems, including drug dependence, is disproportionately great, so that a purposeful allocation of resources for treatment and preventive measures can be made. Moreover, some kind of 'early-warning' monitoring system is needed to detect changing patterns of drug misuse.

During the course of the London Casualty Survey (Ghodse, 1976a) it became clear that some hospitals were seeing far more patients with drug-related problems than others, and it was thought that it would be interesting to

see if there was any pattern in this uneven distribution and also if there was any difference in the distribution of incidents involving dependent and non-dependent individuals.

Method

Full details of the methodology of the London Casualty Survey have been described elsewhere, and only brief details will be given here. A one-month prospective survey was carried out in 62 Greater London Casualty Departments in July 1975. A questionnaire was administered by the Casualty Officers to all patients who attended during the month of the survey with a drug-related problem—either drug overdose, or for any reason related to drug-dependence, or demanding drugs. The Casualty Officers were asked to assess the dependence status of the patients in terms of defined criteria (Ghodse, 1976b). The numbers of drug-dependent and non-dependent patients attending each hospital during the month were recorded, and the positions of the hospitals were marked on a map of the boroughs of Greater London.

Results

All drug-related incidents

The total number of drug-related incidents (both dependence related and otherwise) involving people over the age of 15 years was

1,706. From Table I, which shows the grouped frequencies of these incidents, it can be seen that their distribution among the hospitals of Greater London was uneven, nearly two-thirds of the incidents (63.8 per cent) being dealt with by only one third (21) of the hospitals. The number of patients attending with a drug-related problem, expressed as a percentage of the total number of casualty incidents is also shown in Table I; those hospitals dealing with the greatest number of drug-related incidents were also those that had the highest proportion of these patients in their own casualty load.

Drug dependence

In 477 incidents out of the total of 1,706 the patient was considered to be dependent on drugs. The distribution of these incidents

among the 62 hospitals fell into four distinct groups, as is shown in Table II and by the geographical location of the hospitals shown in Fig 1. Twelve of the 13 hospitals which between them dealt with more than 60 per cent of the incidents involving drug-dependents were situated in six Central London boroughs, suggesting that, if this type of event may be taken as an indicator drug dependency is indeed a problem of the city centre. In the five hospitals which each dealt with more than 5 per cent of the total number of incidents involving drug-dependents, these patients formed more than 1 per cent of their total casualty population.

Drug overdoses, excluding drug-dependents

When incidents involving drug-dependents were excluded, a total of 1,229 incidents of

TABLE I

Distribution of 1,706 patients with drug-related problems among the 62 Greater London Casualty Departments, with hospitals grouped according to their load of the problem

Percentage of patients with drug-related problems seen by each hospital	Number of hospitals in group	Number of patients with drug-related problems seen by these hospitals	Number of patients as percentage of 1,706	Total casualty load (incidents) seen by these hospitals during survey	Patients with drug-related problems as percentage of casualty load
4.2-4.9%	2	155	9.1%	8,177	1.90%
3.1-3.9%	8	479	28.1%	39,939	1.20%
2.0-2.9%	11	454	26.6%	47,767	0.95%
1.1-1.9%	20	499	29.2%	75,623	0.66%
0.0-0.9%	21	119	7.0%	35,576	0.33%
Total	62	1,706	100.0%	207,082	0.82%

TABLE II

Distribution of 477 drug-dependent individuals among the 62 Greater London Casualty Departments, with hospitals grouped according to their load of the problem

Percentage of drug-dependent patients seen by each hospital	Number of hospitals in group	Number of drug-dependent patients seen by these hospitals	Number of patients as percentage of 477	Total casualty load (incidents) seen by these hospitals during survey	Drug-dependent patients as percentage of casualty load
5.0-11.7%	5	199	41.7%	19,126	1.04%
2.1- 4.4%	8	109	22.9%	32,587	0.33%
1.0- 1.7%	19	119	24.9%	69,183	0.17%
0.0- 0.8%	30	50	10.5%	86,186	0.06%
Total	62	477	100.0%	207,082	0.23%



FIG 1.—The location of hospitals in Greater London showing the distribution of 477 drug-dependent incidents, in terms of the percentage of this total occurring at each hospital.

drug overdose remained, and their grouped frequency distribution throughout Greater London is shown in Table III and Fig 2. Two hospitals, neither of them in Central London, together dealt with 10 per cent of these incidents, and a further 53 per cent were dealt with by 19 hospitals, situated in 16 widely separated boroughs. In fact, most boroughs either had at least one hospital which was a major one as far as drug-overdoses were concerned (i.e. saw more than 2 per cent of the total number of drug overdoses) or had several hospitals among which these patients were presumably dispersed, so that none saw very many.

It is clear that if the distribution of drug-related incidents was fairly uniform within London, some hospitals, with large and active casualty departments might expect to see

considerably more of these patients than other departments, and the figures given in the Tables representing the distribution of the percentage of incidents seen in different hospitals, might therefore be no more than a reflection of the general activity of the casualty departments. However, the variation in the figures representing the number of patients as a percentage of the hospitals' casualty populations suggests that this is not so.

Discussion

It is first necessary to consider the exact meaning of the results reported here. For the sake of convenience, the positions of the participating hospitals were marked on a map of the London boroughs, but it was not intended to imply that all the patients attending a



FIG 2.—The location of hospitals in Greater London showing the distribution of 1,229 non-dependent incidents of a drug overdose, in terms of the percentage of this total occurring at each hospital.

TABLE III
Distribution of 1,229 non-dependent patients who took a drug-overdose among the 62 Greater London Casualty Departments, with hospitals grouped according to their load of the problem

Percentage of non-dependent patients seen by each hospital	Number of hospitals in group	Number of non-dependent patients seen by these hospitals	Number of patients as percentage of 1,229	Total casualty load (incidents) seen by these hospitals during survey	Non-dependent patients as percentage of casualty load
5.0%	2	124	10.1%	14,632	0.85%
2.0-4.7%	19	659	53.6%	82,939	0.79%
1.1-1.9%	21	376	30.6%	77,467	0.49%
0.0-1.0%	20	70	5.7%	32,044	0.22%
Total	62	1,229	100.0%	207,082	0.59%

particular hospital lived in the borough in which the hospital was situated. Ambulances traditionally take patients to the nearest casualty department, even if this entails crossing borough boundaries and a similar

principle presumably operates when people travel to hospital independently of the ambulance service. For this reason all that the maps can strictly claim to show is the distribution of drug-related problems among the casualty

departments of Greater London. That drug-dependent individuals from the suburbs of London and even outside London travel into the capital for the purpose of obtaining drugs (Connell, 1965; Anumonye and McClure, 1970) is well known, and it is therefore not possible to draw from present data any firm conclusions about different rates of drug misuse in specific London boroughs. In terms of service planning, the geographical distribution of case presentation is valid and important information in its own right, and should not be regarded merely as an uncertain reflection of the geographical distribution of population prevalence.

Bearing this reservation in mind, it is clear that incidents involving drug-dependent individuals and those involving non-dependent individuals who overdosed, were distributed differently throughout London. Drug overdoses taken by non-dependent patients were distributed over London, with 21 hospitals each dealing with more than 2 per cent of the total number of incidents, although there is a greater concentration of these hospitals within the Central London area. Incidents involving drug-dependent patients were, in contrast, mostly restricted to a much smaller number of hospitals: out of the five hospitals which together dealt with 41.7 per cent of such incidents, four were within one and a quarter miles of Piccadilly Circus. During the month of the Survey these four hospitals dealt with more than a third of the incidents involving drug dependents in the whole of London. It is possible, of course, that casualty officers of these hospitals are more aware of the problems of drug-dependence than those working in hospitals where it presents less frequently, and perhaps diagnose it more readily. However, there seems to have been considerable uniformity in the level of alertness, for no patient who attended one hospital and was diagnosed as dependent on drugs was subsequently diagnosed as not dependent at a different hospital. It has been suggested (Ghodse, 1976b) that drug-dependent and non-dependent individuals who misuse drugs are separate but overlapping populations, and it appears from the present study that their distribution overlaps geographically in terms of some shared concentration at the city centre.

The large number of incidents involving drug-dependent individuals in Central London confirms previous observations about 'drug-activity' in this area, and it is clear that an effective monitoring of some aspects of drug dependency could be achieved either by occasional repetition of the broad survey or by more frequent repetition in, perhaps, the two Central London hospitals which together dealt with 20 per cent of these incidents, and preferably, perhaps, by combining the two approaches. This could provide useful intelligence in changing patterns of drug-misuse that lead to hospital attendance. Moreover, one or both of these hospitals would be the obvious place for the trial of new methods of case contacting, motivating and treating people with these problems. As far as the numerically much greater problem of drug-overdose by non-dependent individuals is concerned, a similar system of monitoring could be proposed.

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A. Hamid Ghodse, M.D., Ph.D., D.P.M., *Research Psychiatrist and Lecturer*,
Nigel S. B. Rawson, M.Sc., *Medical Statistician*,
Addiction Research Unit, Institute of Psychiatry, 101 Denmark Hill, London SE5 8AF

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