

Use of general practice by intravenous heroin users on a methadone programme

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SUMMARY. *Users of intravenous heroin represent a major challenge for general practice. A study was undertaken in a general practice in central London in 1990 to investigate the use of general practice made by intravenous heroin users who were on a methadone programme. Using information recorded in the patients' notes, 29 intravenous heroin users on a methadone programme were identified; 58 non-drug users (two controls per case) were matched for age, sex and general practitioner. A study of the number of routine consultations, missed appointments, emergency appointments and prescribed items showed that during the study period, those on a methadone programme made a larger number of routine consultations than the control subjects (median number of consultations 14 versus 0). When consultations at which only a prescription was issued were excluded this difference disappeared. Appointments were missed by 14 drug abusers (48%) but by none of the control group ($P < 0.001$). Emergency appointments were made by seven drug abusers (24%) compared with only two controls (3%) ($P < 0.01$). Even after prescriptions for methadone hydrochloride had been excluded from the analysis, patients on the methadone programme were prescribed significantly more items than patients in the control group ($P < 0.001$). This research has shown that intravenous heroin users on a methadone programme used general practice to a greater extent than non-drug users, according to the criteria used in the study. The implications that this may have in discouraging budget holding practices from running such schemes are discussed.*

Keywords: GP utilization; intravenous drug abuse; workload.

Introduction

INTRAVENOUS heroin use is a growing problem in England¹ and its treatment demands increasing input from the health services.² A variety of services are available to intravenous drug users, provided by drug treatment centres, general practice and private organizations. The majority of these drug abusers have expressed a preference for the treatment of their drug problem by general practitioners,³ and in the last 10 years government policy has encouraged general practitioners to play a major role in the management of drug misuse.^{4,5} Indeed, general practice has been shown to be the main point of contact between drug abusers and the medical establishment.⁶

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While designated central funding supports many services for intravenous drug users, it does not cover methadone programmes in general practice. The district health authority currently funds services provided by non-budget holding general practitioners, which include the methadone reduction programmes. However, budget holding general practitioners are responsible for their own allocation of funds and may therefore be discouraged from running detoxification schemes if they are expensive and other patients are seen to take priority.

Anybody with a heroin addiction was eligible for the methadone programme at the study practice, including both temporarily and permanently registered patients. There were approximately 70 patients on the programme at any one time. For the programme, the general practitioners insisted on strict attendance and intravenous drug users were expected to attend for an appointment once a week. Users remained on the programme provided they agreed to decrease their dose of methadone hydrochloride by at least 5 mg in a four week period. Any missed appointments were recorded in the notes; patients who consistently failed to keep appointments were not prescribed methadone. Drug users were encouraged to contact the general practitioner if they were unable to cope with the dose of methadone.

A potential conflict may exist between the budget holding general practitioner being unable to fund a methadone programme and a government policy in favour of general practice management of drug misuse. There are currently little data on the extent to which intravenous drug users make use of general practice services. The aim of this study was to examine general practitioner consultation patterns and prescription rates among a group of intravenous drug users on a methadone programme and in a control group non-drug using patients.

Method

The study was conducted in a central London general practice with a longstanding interest in working with drug abusers. Intravenous drug users were treated by two general practitioners in the practice. Information recorded between 1 April 1990 and 30 September 1990 was collected from patient case notes.

Selection of the case group and control group

Cases included in the study were intravenous heroin users participating in a methadone programme throughout the study period. It was not possible to extend the duration of the study beyond six months because very few intravenous drug users remained on a programme for longer than this. Notification of heroin misuse to the Home Office (under the terms of the misuse of drugs regulations, 1973) was used as a proxy for heroin use, in the absence of a standard definition. The study was restricted to white Europeans because of the difficulties of matching for race, and because of ethnic differences in general practitioner consultations.⁷ A total of 29 eligible cases were identified.

Each case was matched with two controls for age, sex and general practitioner, giving a total of 58 patients in the control group. Age and sex were matched using the computerized age-sex register of the practice. For each drug abuser, a list was generated of all potential controls of the same sex, born within 12 months of the drug abuser. From this list, patients were excluded who were not white Europeans, who had any history of drug abuse recorded in the case notes or who were registered

with general practitioners other than the two running the methadone programme. The two control patients with the date of birth nearest to each case were then identified. Cases and controls were not matched for employment status.

Data collection and analysis

Information abstracted from case notes included the demographic characteristics of the sample (age, sex, occupation where known and human immunodeficiency virus (HIV) status) and information on general practitioner use (whether permanently or temporarily registered with the practice, number of routine consultations, missed appointments, emergency appointments out of surgery hours and prescribed items). The reasons for routine consultations and emergency appointments, as recorded by the general practitioner, and the type of prescription (for methadone or other) were also noted.

To test the reliability and completeness of the patient case notes, 25 consultations by the two general practitioners in the study were observed by E L, who independently recorded the reasons for consultation. The general practitioner–author agreement was 94%, indicating that the records kept by the general practitioners were accurate.

The Kruskal-Wallis test was used for the majority of the statistical analyses using actual data rather than ordered categories. This test was chosen because the data showed a non-normal distribution for all the variables studied. In addition, the number of routine consultations and emergency appointments was dichotomized (ever/never consulted; any/no emergency appointments) and analysed using odds ratios with 95% confidence intervals. A matched analysis failed to add any additional information and is therefore not reported.

Results

Demographic characteristics

The mean age of both the drug users and patients in the control group was 30 years (range 22–43 years); 22 of the drug users (76%) were male. The control group had the same sex distribution (76% male). Occupation was known for only 15 drug users (52%) compared with 49 controls (84%). Twelve drug abusers were unemployed and two drug abusers had no record of occupation in their notes. Five of the non-drug abusers were unemployed and occupation was not known for four of the non-drug abusers. Of the 29 drug users, 21 (72%) were temporarily registered with the practice, compared with only seven of the 58 patients in the control group (12%). The 29 drug users had been injecting heroin for a mean of three years (range one–24 years). Results of HIV antibody tests were recorded for only 11 of the drug abusers (38%), of whom two were positive. HIV status was unknown for all control group patients.

Routine consultations

All the patients on the methadone programme except one had consulted the general practitioner more than 10 times in the six month study period. None of the patients in the control group made more than four consultations and 37 (64%) had not consulted at all (Table 1). The median number of consultations among the drug users (14) was compared with that of the control group (zero). As expected, drug abusers on the methadone programme consulted significantly more often than the control group (Kruskal-Wallis, $P < 0.001$). Excluding consultations from the analysis at which only a prescription was issued reduced the median number of consultations in the drug user group from 14 to zero, the same as the control group (Table 1). The odds ratio

Table 1. Routine consultations, consultations excluding those at which only a prescription was issued, and emergency appointments for the drug abusers and non-drug abusers over the six month study period.

Number of consultations	% of patients	
	Drug abusers (n = 29)	Non-drug abusers (n = 58)
<i>Routine consultations</i>		
0	0	64
1	0	17
2–8	3	19
9–15	76	0
16–23	21	0
<i>Routine consultations excluding those at which only a prescription was issued</i>		
0	52	64
1	24	17
2–8	24	19
9–15	0	0
16–23	0	0
<i>Emergency appointments</i>		
0	76	97
1	17	3
2	0	0
3	7	0

n = number of patients in group.

for ever/never consulting in this case was 1.64, confidence interval (CI) 0.61 to 4.48.

The most common reason for general practitioner consultation for the drug user group was to obtain a prescription (379/400 consultations, 94.8%). The corresponding figure for the control group was 5.6% (two out of 36 consultations). The most common reason for the control group consulting the general practitioner was for respiratory disorders (11/36, 30.6%). The drug abusers made only five such consultations (1.3%). Twenty eight of the 36 consultations made by the non-drug abusers were considered to be for medical problems while 16 of the 400 consultations made by the drug abusers were for medical problems.

The possible effect of unemployment on frequency of consultation was investigated in two ways. First, the consultation rates of the employed and unemployed drug abusers were compared and no significant difference was found. Secondly, unemployed subjects (in both the case and control groups) were excluded from the analysis. The 15 drug abusers who were employed consulted significantly more often than the 49 employed patients in the control group (Kruskal-Wallis $P < 0.001$).

Missed and emergency appointments

Fourteen of the patients on the methadone programme missed at least one booked appointment while none of the controls missed any (Kruskal-Wallis $P < 0.001$).

The drug users also made more emergency appointments than those in the control group (Kruskal-Wallis $P < 0.01$). Seven of the drug abusers (24%) made at least one emergency appointment compared with only two of the patients in the control group (3%) (Table 1). Drug users were nearly nine times more likely than patients in the control group to make an emergency appointment (odds ratio = 8.91, 95% CI 1.16 to 77.1). While statistically significant, the 95% confidence intervals around this

estimate were wide. Of the 11 emergency appointments made by the patients on the methadone programme, six were for prescriptions for methadone and five were for medical problems, while the two emergency appointments made by patients in the control group were for dermatological and orthopaedic problems. Abdominal pain or diarrhoea resulting from drug withdrawal may have accounted for the emergency appointment made by one of the drug users attending for a gastrointestinal disorder.

Prescribed items

Patients in the methadone programme were prescribed significantly more items than patients in the control group (Kruskal-Wallis $P < 0.001$). All 29 drug abusers (100%), but only six patients in the control group (10%), were prescribed at least two items during the study period. When methadone prescriptions were excluded the number of prescribed items remained significantly higher for drug users (Kruskal-Wallis $P < 0.001$). Twenty six drug users were prescribed at least two items other than methadone.

Discussion

The age and sex distribution of the drug abusers closely reflected that of intravenous drug users nationally,¹ suggesting that the study sample was representative with respect to age and sex, although the results can only be generalized to white Europeans. The results may also only apply to intravenous drug users currently on methadone programmes. Those not on a programme may have different medical problems resulting from recurrent injection of drugs. It is important to emphasize that the practice studied was unusual in treating such a large number of drug abusers. The sample size was small because of the difficulty in studying drug abusers, owing to their high mobility and the illegal nature of drug misuse. The power of the study was, however, sufficient to obtain statistically significant results.

The results of the study show that a larger number of patients on the methadone programme were temporarily registered with the general practitioner (76%) than were non-drug users (12%). It could be that patients were consulting their permanent general practitioner for their medical problems, while undergoing treatment for their drug habit as a temporary patient at the study practice, in order to preserve confidentiality. This would reduce the number of consultations being made by the drug abusers for medical problems (only 16 of the routine consultations and five of the emergency consultations were for medical problems). However, no information was available in the study on the number of temporary patients who were also registered elsewhere. With the increasing prevalence of HIV infection among intravenous drug users, the number of consultations for medical problems can be expected to rise, because HIV infection has been shown to be associated with increased general practitioner consultation rates.⁸

Drug users consulted their general practitioner significantly more often than non-drug users. This supports the findings of Neville and colleagues who carried out a similar study in Dundee.⁹ However, after excluding consultations at which only a prescription was issued, the difference in consultation rates between drug users and patients in the control group became non-significant, suggesting that the drug requirement of the patients on the methadone programme was responsible for their large number of visits to the general practitioner.

Social class and unemployment may confound the relationship between drug use and consultation rate. However, the effect of social class could not be identified in this study because 12 out of 27 drug abusers and five non-drug abusers in the con-

trol group were unemployed and could not be allocated to a social class based on occupation. Other variables used to determine social class, such as housing tenure or car ownership,¹⁰ were not recorded in the patient case notes. It has been reported that patients in manual socioeconomic groups consult their general practitioners more than one and a half times as often as those in non-manual groups.¹¹ It is unlikely however, that the large difference in consultation rates found in this study could be solely explained by differences in social class between cases and controls.

Unemployed people have been found to be 1.8 times more likely than employed people to consult their general practitioner in a 14 day period.¹² Ideally the cases and controls should have been stratified by employment status in the analysis. This was not possible because of the small number of controls (five) who were unemployed. Consultation rates among drug abusers who were employed and unemployed were, nevertheless, similar and confining the analysis to employed cases and controls did not diminish the higher consultation rate seen in those on the methadone programme.

Several factors could explain why a large number of drug abusers failed to keep appointments. First, intravenous drug users may have been obtaining drugs from multiple sources, so removing the need to obtain methadone hydrochloride from the general practitioners in the study on every occasion — a study conducted in the same practice found that 88% of drug misusers on a methadone programme continued to use illicit drugs.¹³ Secondly, general practitioners may be more likely to record a missed appointment in the notes of patients in the methadone programme than for other patients. Thirdly, travel to the surgery may present a problem and be expensive, particularly in a practice which accepts drug users from outside its catchment area. Lastly, failure to follow the proposed reducing regimen could result in a missed appointment, because of the desire to terminate detoxification or fear of censure from the general practitioner. It is difficult to identify precisely the reasons for the missed appointments, but these could be explored if communication between drug users and general practitioners were improved.

Drug abusers were nearly nine times more likely to make an emergency appointment than patients who were controls. Emergency appointments made for obtaining prescriptions for methadone to relieve withdrawal symptoms accounted for six of the 11 emergency appointments made by the drug users, suggesting they could not cope with detoxification.

Five drug users (17%) made emergency appointments for medical problems compared with two controls (3%). A larger study would be required to investigate causes of emergency appointments in detail but this difference may be explained by illness associated with drug withdrawal. Drug abusers may experience a higher incidence of serious conditions requiring emergency medical treatment.¹³ The fact that drug users in this study made more emergency appointments than non-drug users may increase the workload of the general practitioner.

Patients on the methadone programme received significantly more prescribed items than patients in the control group, even after excluding prescriptions for methadone.

Intravenous drug users in this study consulted their general practitioner more frequently than the control group of non-drug users, probably as part of their methadone programme. They also made a greater number of emergency appointments and required more prescribed items. Methadone programmes in general practice may therefore prove costly. Their low rate of success¹³ combined with the current availability of centrally funded treatment for intravenous drug users may discourage general practitioners holding budgets from running such schemes. This could mean that drug users have to seek help

elsewhere, increasing the workload of other agencies. The drug users in this study, however, did not appear to have greater medical needs than the controls. The use of specialized drug treatment centres for detoxification is unlikely to reduce the quality of care intravenous drug users receive, providing it is emphasized that general practitioners are available to treat any medical problems, as some drug treatment centres do not have specific medically qualified personnel to deal with these problems.

It is likely that, as the number of budget holding general practices increases, so too will the conflict between the intravenous drug users' preference for methadone programmes run in general practice and the reduced availability of the programmes owing to financial restraints imposed by the new budgets. Making extra resources available to treat these patients would allow general practices to take up the challenge.

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Dr O S GHOBRIAL

The Royal College of General Practitioners advises that the announcement of Dr Ghobrial's death in the 1992 members' reference book was incorrect and apologizes for any distress or embarrassment caused.



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