Sex Differences in Patterns of Drug Taking Behaviour

A Study at a London Community Drug Team

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This study investigates sex differences in patterns of drug taking and related injecting and sexual behaviour among 355 patients attending a London community drug team. The majority of cases attending the service presented with heroin problems. Men were more likely to use heroin by injection and women were more likely to use heroin by inhaling/smoking ('chasing the dragon'); there was no sex difference in the overall incidence of needle sharing. The delay between first use of the problem drug and first presentation to services was the same for both men and women. Women were more likely to have a sexual partner who was a drug user and to be living with another user than men. This closer social attachment to other drug users was seen as presenting a high risk factor for women with regard to prognosis and treatment.

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Female opiate addicts may have experiences and problems that differ from those of male addicts. However, the nature and significance of differences in drug taking patterns between men and women have received relatively little investigation. Drug research has paid comparatively little attention to the problems of women. Nonetheless, many women have drug problems. Indeed, at the beginning of the century in the USA, it was reported that there were more women than men who were addicted to opiates (Winick, 1962; Musto, 1973). In recent decades, this pattern appeared to have been reversed, with fewer women than men addicted to opiates, and fewer women entering treatment. Figures from the Home Office Addicts Index over the last decade show a remarkably constant figure of under 30% for notified female addicts, and in some recent British studies the percentage of women in drug treatment programmes has been about 25% both in in-patient treatment and also in various community treatment samples (Gossop *et al*, 1989; Strang *et al*, 1992). However, even though the majority of heroin addicts in treatment may be men, there is still a substantial number of women who become dependent upon heroin. Sanchez & Johnson (1987) have also suggested that there may have been a greater percentage increase in opiate abuse by women in the USA in recent years.

A series of studies (Hser *et al*, 1987*a*,*b*; Anglin *et al*, 1987*a*,*b*) have investigated sex differences in a sample of 546 heroin addicts being treated in methadone maintenance programmes in southern California. Hser *et al* (1987*b*) found many similarities between male and female patterns of drug abuse; they also found that female opiate addicts tended to be younger than the men, and that the women were more likely to be initiated into drug use by a spouse or sexual partner. Similarly, Marsh & Simpson (1987) found several differences between male and female addicts, including differences in psychological and emotional status at follow-up, in reported reasons for entering treatment, and in reasons for wanting to stop taking drugs. Rosenbaum (1981) also noted that female addicts were more likely to cite family problems as having contributed to their drug problems. The present study further investigates the differences between men and women receiving treatment for drug dependence within a south London community drug team.

Method

The subjects in this study were all patients who presented to the community drug team of the Maudsley Hospital in south London and all were resident in the local catchment area. The Maudsley community drug team has a catchment area of 220 000 covering a wide span of inner-city areas – ranging from severely deprived to affluent. The team sees approximately 450 new cases each year. The majority of these cases are heroin users. The main sources of referrals are self-referrals (either by telephone or through a walk-in clinic), general practitioners, and other medical services. The working practices of such a community drugs team has been described by Strang *et al* (1992).

Data were collected by means of semistructured clinical interviews and were conducted with clients at first attendance at the service. All interviews were conducted by clinical staff and data were recorded on standardised monitoring forms. A total of 441 people attended the community drug team during the study period (1987–89) and detailed information is available for 355 of these. Data are presented for this latter group. Due to changes in the monitoring form and missing values, the base for percentages may vary.

Results

Of the 355 subjects, 124 (35%) were women and 231 (65%) were men. The average age was the same for both men and women (26.7 years). The mean age at which they had first

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sought help for a drug problem was 23.6 years (men) and 24.5 years (women). The time between first use of the primary problem drug and first seeking help for a drug problem was calculated. The mean delay for both men and women was 3.9 years.

There was no sex difference in the type of presenting drug problem. Virtually all patients were opiate users. For most, the primary presenting problem involved heroin (86% for all subjects; 87% men, 84% women). The majority of the sample used a range of different drugs, but drugs other than opiates were only infrequently mentioned as problematic or requiring any form of intervention. Daily heroin doses varied between 0.1 g and 3.5 g (mean 0.7 g). There was no difference in daily heroin dose beween men and women (for men 0.71 g, for women 0.64 g; $t = 1.14$, NS).

Twenty-nine patients (8%) presented with problems with opiates other than heroin, or with polydrug abuse problems including opiates. Only four patients (1%) presented with cocaine as a primary drug problem. Eight patients presented with a primary benzodiazepine problem, of whom six patients were women (i.e. 5% of the female sample presented with a benzodiazepine problem).

Men were more likely than women to report using heroin by injection. Of the 264 heroin users who could define a usual route of use, 70% of the men were using by injection compared with 58% of the women ($\chi^2 = 3.95$, $P < 0.05$). Sixteen per cent of heroin users did not report a main route of use. Regardless of usual route of use, many of the subjects (72%) had injected, at least once, over the last year. Again men were more likely to have injected, with 69% of the men and 57% of the women reporting injecting over the last year ($\chi^2 = 4.1$, $P < 0.05$). However, when respondents were asked to report whether they had ever injected a drug, no statistically significant differences were found between men and women: 68% of men and 59% of women had ever injected ($\chi^2 = 1.9$, $P = 0.17$, NS). Data on these and other variables are summarised for the entire sample in Table 1.

Among those who had injected drugs, the mean age at first injection was 21 years (range 13–35 years). There was no difference between men and women in age at first injection (21 years for both).

Within the total sample, 46% had shared needles or injecting equipment at least once in their lives and 24% had shared within the last year. When expressed as percentages of the people who had ever injected drugs, the results on needle sharing show that there was no sex difference in the lifetime incidence of needle sharing (62% of the male injectors and 63% of the female injectors; $\chi^2 = 0.05$, NS). Nor was there any sex difference in needle sharing practices during the year before interview (32% of the men and 37% of the women: $\chi^2 = 1.4$, NS).

The female drug takers differed from the males in several respects. The women were found to be more likely to be involved in a sexual relationship; 73% of the women had a current sexual partner compared with 60% of the men ($\chi^2 = 5.9$, $P < 0.05$). Women were more likely to have a partner who was a drug user (55% of the women, 29% of the men; $\chi^2 = 19.1$, $P < 0.001$), and women were also more likely to be living with another drug user (48% of the women compared with 37% of the men; $\chi^2 = 3.9$, $P < 0.05$). Only a minority of the subjects were living alone (13% of the men and 9% of the women) and there was no sex difference on this variable. Many of the addicts in the present sample had family responsibilities involving children. Forty-four per cent of the women had children to look after compared with 35% of the men ($\chi^2 = 29.3$, d.f. = 1, $P = 0.09$).

There were some minor differences between the ways in which men and women financed their drug habits. A small group of subjects (2% of the men and 7% of the women) admitted to engaging in prostitution to obtain drugs (i.e. either to obtain money to buy drugs or to obtain drugs directly as a payment for sex). Dealing was more often mentioned by men (10%) than by women (2%) as a way of maintaining a supply of drugs. Theft was by far the most frequently mentioned method of financing a habit for both sexes, and was mentioned by 56% of the men and 45% of the women. Seventeen per cent of the men and 14% of the women claimed to finance their drug taking entirely on the money earned at work.

About one-third of the sample had previous convictions for a drug-related offence (40% of the men and 31% of the women). There was no difference between men and women with respect to convictions for possession or dealing in drugs ($\chi^2 = 2.8$, NS). More of the men had been convicted of non-drug offences (60% of the men and 46% of the women; $\chi^2 = 6.3$, $P < 0.05$). Similarly, men were much more likely to have been in prison (60% of the men v. 36% of the women; $\chi^2 = 19.9$, $P < 0.001$).

Table 1
Summary of drug taking, social relationships, and forensic history (for total sample, $n = 355$)

	Men: %	Women: %	χ^2
Usual route injection	56	43	3.9*
Injected last year	73	61	3.9*
Injected ever	78	71	1.6
Shared ever	48	43	1.1
Shared last year	23	25	0.2
Sexual partnership	60	73	5.9*
Partner uses	29	55	19.1**
Living with drug user	37	48	3.9*
Drug conviction	40	31	2.8
Other conviction	60	46	6.3*
Prison	60	35	19.9**

*$P < 0.05$, **$P < 0.001$.

Discussion

A number of differences were found between male and female drug abusers in the route of drug administration and in the extent of personal involvement with other drug users. The main type of drug problem for both men and women in our sample involved heroin, and although most of the subjects also used other drugs in addition to opiates, the patterns

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of use of other drugs were seldom seen by either the user or by the clinic staff as requiring any form of specific clinical intervention. Men were more likely regularly to use heroin by injection whereas the women were more likely to inhale ('chasing the dragon') (cf. Gossop *et al*, 1988). One of the most important issues surrounding the injection of drugs is that of needle sharing and the associated risks of infection with the human immunodeficiency virus (HIV). It is, therefore, a matter of some concern that almost two-thirds of the injectors in our sample had also shared needles at some time, and about one-third of them had shared in the last year. There was no sex difference among the injectors with regard to sharing.

In the series of responses to *The Health of the Nation* it was suggested that the accessibility of services could be studied by measuring changes in the interval between onset of problem drug use and presentation to services (Strang, 1991). It has often been asserted (Advisory Council on the Misuse of Drugs, 1988; World Health Organization, 1989) that women may be deterred from presenting to drug treatment services, and this effect was found in an American sample by Anglin *et al* (1987*b*). Our results show that the lag between first use of problem drug and first presentation to services was the same for both men and women. If women were deterred or otherwise delayed in approaching treatment services then the delay between onset of drug use and first presentation should be greater for women. An alternative (but unsubstantiated) suggestion might be that the rate of deterioration is more rapid among women so that they more quickly reach a state requiring treatment. While our finding challenges conventional wisdom, it should be emphasised that the social, psychological, and pharmacological processes underlying problematic drug use among women have been insufficiently explored and these deserve more careful investigation in future.

The results also show that women were more likely to be involved in a sexual relationship than the men and they were more likely to be involved in a close personal relationship with another drug user. These findings are consistent with those of studies conducted in the USA. Anglin *et al* (1987*b*) found that women were more likely to be living with a sexual partner who used drugs, and, among alcoholic patients, women were found to be more likely than men to report poor marital relationships and to have spouses who encourage them to drink and who drink heavily themselves (Cronkite & Moos, 1980). Eldred & Washington (1976) also reported that women were more likely than men (48% v. 21%) to receive drugs as a present from a sexual partner.

This greater personal involvement of women with other drug users could be expected to have considerable importance in terms of prognosis and clinical intervention. Moos *et al* (1990) found that environmental factors had a stronger influence on women with alcohol problems than on men, and suggested that when women are living with a partner who is a heavy drinker, this may influence outcome in a number of ways; for instance, such women may be less likely to participate in aftercare than women without heavy-drinking partners. The availability of social support and, conversely, the presence of risk factors likely to promote the use of drugs such as heroin, can be seen as powerful determinants of relapse or abstinence. The availability of social support is acknowledged to be an important determinant of outcome within treatment models as diverse as Relapse Prevention and Alcoholics Anonymous/ Narcotics Anonymous. This has been confirmed in a prospective study of relapse among opiate addicts, in which the number of protective factors available to the individual, including socially supportive partners and family, was found to be predictive of abstinence and good outcome six months after leaving treatment (Gossop *et al*, 1990).

The finding that the women in our present sample were more likely to be closely involved with another drug user means that they were simultaneously deprived of a protective factor and exposed to a high-risk factor, thereby increasing their relapse liability in two different ways. This interpretation is also consistent with the finding that women were at especially high risk during the critical period immediately after leaving an in-patient treatment programme and were more likely than men to relapse to heroin use during that time (Gossop *et al*, 1990).

References

Advisory Council on the Misuse of Drugs (1988) *AIDS and Drug Misuse: Part I*. London: HMSO.

Anglin, M. D., Hser, Y. I. & Booth, M. W. (1987*a*) Sex differences in addict careers. 4. Treatment. *American Journal of Drug and Alcohol Abuse*, **13**, 253–280.

———, ——— & McGothlin, W. H. (1987) Sex differences in addict careers. 2. Becoming addicted. *American Journal of Drug and Alcohol Abuse*, **13**, 59–71.

Cronkite, C. & Moos, R. (1980) The determinants of post-treatment functioning of alcoholic patients: a conceptual framework. *Journal of Consulting and Clinical Psychology*, **48**, 305–316.

Eldred, C. & Washington, M. (1976) Interpersonal relationships in heroin use by men and women and their role in treatment outcome. *International Journal of the Addictions*, **11**, 117–130.

Gossop, M., Griffiths, P. & Strang, J. (1988) Chasing the dragon: characteristics of heroin chasers. *British Journal of Addiction*, **83**, 1159–1162.

https://doi.org/10.1192/bjp.164.1.101 Published online by Cambridge University Press

——, GREEN, L., PHILLIPS, G., *et al* (1989) Lapse, relapse and survival among opiate addicts after treatment. *British Journal of Psychiatry*, **154**, 348–353.
——, ——, ——, *et al* (1990) Factors predicting outcome among opiate addicts after treatment. *British Journal of Clinical Psychology*, **29**, 209–216.
HSER, Y. I., ANGLIN, M. D. & BOOTH, M. W. (1987*a*) Sex differences in addict careers. 3. Addiction. *American Journal of Drug and Alcohol Abuse*, **13**, 231–251.
——, —— & MCGOTHLIN, W. H. (1987*b*) Sex differences in addict careers. 1. Initiation of use. *American Journal of Drug and Alcohol Abuse*, **13**, 33–57.
MARSH, K. & SIMPSON, D. W. (1987) Sex differences in opioid addiction careers. *American Journal of Drug and Alcohol Abuse*, **12**, 309–329.
MOOS, R., FINNEY, J. & CRONKITE, R. (1990) *Alcoholism Treatment: Context, Process and Outcome*. Oxford: Oxford University Press.
MUSTO, D. F. (1973) *The American Disease: Origins of Narcotic Control*. New Haven: Yale University Press.
ROSENBAUM, M. (1981) *Women on Heroin*. New Brunswick: Rutgers University Press.
SANCHEZ, J. E. & JOHNSON, B. D. (1987) Women and the drugs–crime connection: crime rates among drug-abusing women at Rikers Island. *Journal of Psychoactive Drugs*, **19**, 205–216.
STRANG, J. (1991) Injecting drug misuse: response to 'The Health of the Nation'. *British Medical Journal*, **303**, 1043–1046.
——, SMITH, M. & SPURRELL, S. (1992) The community drug team. *British Journal of Addiction*, **87**, 169–178.
WINICK, C. (1962) Maturing out of narcotic addiction. *Bulletin on Narcotics*, **14**, 1–7.
WORLD HEALTH ORGANIZATION (1989) *Aids among Drug Abusers in Europe*. Geneva: WHO Regional Office for Europe.

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Effectiveness in Psychiatric Care

III: Psychoeducation and Outcome for Patients with Major Affective Disorder and Their Families

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This hypothesis-generating study had the objective of dissecting the process of psychiatric care in an attempt to understand outcomes for patients and their families. In all, 24 patients who carried a DSM-III diagnosis of major affective disorder were identified 12–18 months after hospital admission. The patients, their families, and their doctors were interviewed using instruments measuring delivery of treatment and achievement of treatment goals; findings were then correlated with resolution of the index episode and patient global outcome. Delivery of patient and family psychoeducation was associated with better resolution of the index episode and better global outcome.
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Despite major advances in the treatment of psychiatric disorders over the last decade, outcomes for patients and their families have been found to be less than ideal (Keller *et al*, 1986). A major reason is lack of treatment adherence (Regier *et al*, 1988). Recent research suggests that adding psychoeducational interventions, with combined psychopharmacological and psychotherapeutic interventions, for both patients their families might promote compliance (Glick *et al*, 1991*a*). Psychoeducation as a technique in clinical practice can be defined as the systematic administration by the physician of information about symptoms, aetiology, treatment and course, with the goals of increasing understanding and changing behaviour.

As part of an ongoing hypothesis-generating study of the processes and outcomes of psychiatric care, we studied a group of former in-patients with major affective disorder to assess: (a) whether treatment including psychoeducation was delivered; (b) whether the goals of treatment, including the education of patients and families, were achieved; and (c) how the delivery of and achievement of the above correlated with outcome. In earlier papers we have studied the processes and outcomes for patients (Glick *et al*, 1991*b*) and families (Glick *et al*, 1991*c*). Here we focus on the psychoeducational interventions.

Method

The details of the method have been previously published (Glick *et al*, 1991*b*,*c*).

In total, 24 patients who carried a DSM-III diagnosis of major affective disorder (American Psychiatric Association, 1980) were identified 12–18 months after hospital admission in three countries (Italy, Japan, and the USA). The patients, their families and their doctors were interviewed separately, and then together, using instruments measuring delivery of treatment (using an ideal-treatment criteria set) and achievement of treatment goals; the findings were then correlated (using non-parametric statistical techniques) with resolution of the index episode and patient global outcome.

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