PAPERS AND SHORT REPORTS

Indicators of psychiatric disorder among women admitted to prison

T H TURNER, DAVID S TOFLER

Abstract

A random sample of 708 women prisoners recently admitted to Holloway Prison was screened for evidence of psychiatric disorder. Of the 708 women, 195 had a history of self harm, 44 of whom had a history of cutting themselves, 125 had a history of psychiatric illness, 99 were dependent on opiates, and 89 took psychotropic drugs regularly. These findings suggest that there is a need for psychiatric units in women's prisons such as Holloway Prison, and that initiatives to alter policies of admission to psychiatric hospitals should be pursued.

Introduction

Women prisoners in the United Kingdom are generally believed to have a high incidence of mental disorder.¹ There has, however, been little information on their psychological health since Gibbens's study in 1971.² Women constitute 3% of the entire prison population (about 1600 out of 48 000), and there have been significant increases in the overall numbers of prisoners, particularly remand prisoners, in Britain in the past 10 years.³ Given the concomitant reduction in the number of beds in mental hospitals, we assessed the prevalence of psychological morbidity in a group of people long regarded as having "medical and social problems rather than as being hardened criminals."⁴

Furthermore, there have been several critical reports in newspapers highlighting incidents of disordered behaviour in Holloway Prison, especially in the psychiatric wing.⁴⁻⁷ If a significant number of women prisoners are found to have a potential for psychiatric illness or disturbed behaviour, or both, and given that alternative secure facilities are largely non-existent, then there is a need for some kind of appropriate facility within the prison. What form this unit should take is a wider question, embracing the whole

philosophy of prison care,⁸ and answers will not be forthcoming unless reliable information is obtained. We have attempted to start this process. The views expressed in this study are our own.

Subjects and methods

Holloway Prison is a modern purpose built prison for women in north London. It has a capacity for 360 remand and sentenced prisoners drawn from a large area of southern England. All newly admitted women are seen by a doctor in the early evening. At these reception clinics a brief history is taken and a physical examination is carried out after preliminary screening by nurses using a standard questionnaire. Given the large numbers seen this process cannot be detailed—for example, a full assessment of the mental state cannot be performed for every admission. We therefore set out to answer five basic questions on prisoners' physical or mental state, supplemented by further examination, as required. The five questions asked were: the age of the prisoner; medical or psychiatric history, or both; present use of medical or illicit drugs, or both (in the past four weeks); history of overdose, deliberately cutting themselves, or other forms of self harm; smoking behaviour (are you a regular smoker?).

The sample studied comprised 708 women (from a total of 2194) admitted from 31 August 1984 to 26 April 1985 inclusive. This included the reception clinics of three weekdays and every second Saturday. All women we saw during the study were included in the results. The sample is therefore random as no day of the week had any form of selected intake. Those few women refusing to give details of their history or use of drugs were included as negative responders. On admission some disturbed women are seen earlier in the day by the daytime medical officer, and as a result 34 women were seen before we arrived in the evening, as were an additional 29 women requiring drug withdrawal regimens.

Student's *t* test for the comparison of populations of unequal size was used in the statistical calculations.

Results

The sample comprised 708 women with a mean age of 27.8. Table I shows various aspects of the women's psychiatric history, defined by previous psychiatric inpatient or outpatient treatment but not including assessment for court reports or attendances to drug dependency units. Women with a psychiatric history were significantly older than women with no "conditions" ($d=4.72$, $p<0.001$). Those with a history of deliberately cutting themselves were significantly younger than those with no conditions ($d=3.44$, $p<0.01$). Sixteen of the women with neurological illness had epilepsy. No history could be obtained for 17 women, nine of whom

Institute of Psychiatry, London SE5 8AF

T H TURNER, BA, MRCPsych, research psychiatrist

Friern Hospital, London N11

DAVID S TOFLER, MRCPsych, senior registrar in psychiatry

Correspondence to: Dr Turner.

Psychiatric history of 708 female prisoners defined by previous psychiatric inpatient or outpatient treatment

	No (%) of women	Mean age (years)
Total	708	27.8
Psychiatric history	125 (18)	32.9*
Previous self harm:		
Overdose and cutting themselves	195 (28)	28.6
Previously cut themselves	44 (6)	23.5**
Neurological illness	19 (3)	29.1
Women with no conditions	339 (48)	27.1

* $p < 0.001$, ** $p < 0.01$.

Some women overlap categories; thus 369 women had 527 conditions.

probably had an abnormal mental state; all 17 were included as negative responders.

A total of 207 out of 708 women had been taking drugs in the month before admission to prison: 99 heroin or other opiates; 19 alcohol; and 89 psychotropic drugs (65 benzodiazepines, 16 antidepressants, and eight phenothiazines).

The figure shows the relation between psychiatric history, history of self harm, and current use of drugs. A core group of 37 women appeared in all three categories. Twenty seven (22%) out of 125 women with a psychiatric history were in neither of the two other categories, compared with 59 (29%) out of 195 with a history of self harm and 88 (43%) out of 207 who were currently taking drugs.

There were 442 tobacco smokers among the 616 women asked about smoking; 265 of these smokers were not taking other drugs. Of the 30 women who were apparently asthmatic, 18 were smokers.

Relation between psychiatric history, history of self harm, and current use of drugs in 708 women from Holloway Prison.

Discussion

The limitations of these data are clear. We made no attempt to examine in detail the personal histories, offences, or mental states of the incoming prisoners. Instead we used drug abuse, self harm, and history of psychiatric treatment as indicators of psychiatric disorder. Furthermore, we relied largely on the reports given by the women themselves as few objective facts were available. Balancing the likelihood of exaggeration of problems against the stigma of psychiatric illness, the withholding of information, and the early removal of some overtly disturbed women from the reception area (63 in all), we suspect that the factors we used were more important. The results are, however, likely to underestimate the cohort's potential psychiatric morbidity.

If the data are reliable how valid are they in reflecting psychological ill health? In this respect there was an overlap as 369 women had 527 "conditions"—that is, self harm, psychiatric illness, and use of drugs—with 98 out of the 125 with a history of psychiatric illness included in other groups. Furthermore, half of those with a history of self harm were taking drugs at the time of the study, many more than shown on the figure for the cohort as a whole and in agreement with results of previous studies.⁹ A core group of 37 prisoners were found in all three categories. Their range of behaviour of drug use was dependence on alcohol (nine), opiates

(nine), benzodiazepines (14), and psychotropics (five). There was a trend relating drug use and other evidence of disorder.

There seems to be a high psychiatric morbidity among women brought to Holloway Prison. Over a quarter of the women have deliberately harmed themselves, nearly a third are taking some form of psychotropic drug, and less than half have a history free of evidence of psychological disorder. There is nothing new in this: previous studies have shown similar results among various groups of women prisoners (T Gibbens, N Goodman, S Dell, J Price. Unpublished data).^{2,10} Unfortunately, comparisons are of limited use because of the different methods of obtaining data, but Gibbens *et al*'s finding that 21% of women in Holloway Prison have "attempted suicide" is compatible with our figure. We found a noticeable trend of those with a psychiatric history being older than those without (mean age 32.9 *v* 27.1, respectively), in accord with the results of other studies (T Gibbens, N Goodman, S Dell, J Price. Unpublished data).^{11,12}

Comparison of our point prevalences with those of the general female population is probably unhelpful, not least because prevalences for the use of psychotropic drugs in 1984-5 have not yet been collated. For example, it was reported that each year about 14% of adults take a benzodiazepine,¹³ while a 1977 study showed that during one year sedative or hypnotic drugs were prescribed at least once to 16% of women attending a general practice unit.¹⁴ In comparison, our figure for the use of benzodiazepine of 9.2% seems high as it represents only one month's use and does not include the heroin addicts and alcoholics, who were often also taking psychotropic drugs. A true comparison awaits a contemporary prevalence study.

Our results have implications for further research and requirements for services. Given the public debate about the psychiatric unit in Holloway there is a need for a comprehensive and up to date study of the psychological health of women prisoners. This might focus partly on forms of self injury. Several theories have been suggested—for example by Coid¹⁵—as the cause of people deliberately cutting themselves, but nothing has been established and no treatment is clearly effective. In our study the women who deliberately cut themselves were significantly younger than the women with no condition (mean age 23.5 *v* 27.1, respectively), a finding similar to that of a previous survey of self injury in Holloway.¹⁶ Given the roles of imitation and attention seeking in this type of behaviour⁹ strategies for management might be explored systematically.

Our figure of 14% for women who were dependent on drugs (a likely underestimate given the early removal of 29 addicts from reception) reflects a noticeable increase in the number of such women admitted to Holloway Prison (430 in 1984 compared with 253 in 1983 and about 110 in 1972¹⁷). Given the prevailing shortage of National Health Service facilities the provision of an organised drug rehabilitation unit within Holloway Prison would seem to be an essential priority. Interestingly, the Holloway Project committee could not recommend this until more sentenced rather than remand prisoners were held at Holloway.¹⁷

The prevalence of alcohol dependence in women in this study was a modest 2.6%. In contrast with this result, Gibbens reported a prevalence of 8% for alcoholism and 5% for drug addiction.² In our study there may have been a switch from alcohol to opiates in the dependency group, though court and police attitudes to these drugs may well be a key factor in deciding who is actually sent to prison—for example, fewer alcoholics are likely to be imprisoned after the abolition of prison sentences for "simple drunkenness" offences.

There are other noteworthy findings from our study. About seven women were receiving antipsychotic treatment (a likely underestimate). A total of 508 (72%) were smokers, compared with 32% of adult women in 1984.¹⁸ We found that 2.2% of women had epilepsy, which is similar to the 1.9% found by Gibbens *et al* (T Gibbens, N Goodman, S Dell, J Price. Unpublished data) and the prevalence of epilepsy in male prisoners in 1967 of 0.72% found by Gunn.¹⁹ Such data confirm the range of psychological distress in our cohort.

In our opinion this preliminary work highlights three key points. Firstly, there remains a need for a psychiatric unit in a women's

prison such as Holloway Prison. Given the random process of admission and the often urgent need for skilled assessment and nursing, this unit must be on site, have a high staff to patient ratio as in psychiatric acute units or medium secure units, and have expertise in detoxification and withdrawal from drugs with links to outside services. Secondly, changes in the organisation of the psychiatric unit may well be required in structure, staffing, and philosophy of management, as recommended by the Holloway Project committee.¹⁷ Mentally disturbed women are constantly being admitted to Holloway Prison, often because there is nowhere else for them to go. Thus initiatives to alter policies of admission to psychiatric hospitals should be vigorously pursued. Finally, we think that a prison with its controlled environment is a suitable place for research, particularly into the treatment of personality disorders,²⁰ drug dependence, and deliberate cutting; any progress in these poorly understood topics of psychopathology would benefit not just the victims but society in general.

We thank the officers and nursing staff of Holloway Prison for their help; Dr P d'Orban for his advice and encouragement; and Drs Phillips and Berry for their support.

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(Accepted 6 January 1986)

Six minute walking test for assessing exercise capacity in chronic heart failure

D P LIPKIN, A J SCRIVEN, T CRAKE, P A POOLE-WILSON

Abstract

Twenty six patients, mean age 58 years (range 36-68), with stable chronic heart failure, New York Heart Association class II-III, and 10 normal subjects of a similar age range were studied. Exercise capacity was assessed by determining oxygen consumption reached during a maximal treadmill exercise test and by measuring the distance each patient walked in six minutes. There were significant differences in the distance walked in six minutes between normal subjects, patients with heart failure, class II, and those with class III heart failure (683 m, 558 m, and 402 m, respectively ($p < 0.003$)). The relation between maximal oxygen consumption and the distance walked in six minutes was curvilinear; thus the distance walked varied considerably in those with a low maximal oxygen consumption but varied little in patients and normal subjects with a high maximal oxygen consumption. All subjects preferred performing the six minute walking test to the treadmill exercise test, considering it to be more closely related to their daily physical activity.

The six minute test is a simple objective guide to disability in patients with chronic heart failure and could be of particular value in assessing patients with severe heart failure but less useful in assessing patients with mild heart failure.

Introduction

The severity of congestive heart failure is usually graded according to patients' reported symptoms, and in particular to the amount of physical activity that is associated with dyspnoea or fatigue. A more objective analysis would be useful to classify patients with congestive heart failure and to assess the efficacy of therapeutic interventions. Measurement of respiratory gas exchange provides a non-invasive assessment of maximal exercise capacity.^{1,5} Many patients, however, state that daily activities rarely entail the high workloads performed during a laboratory maximal exercise test. We investigated a simple practical test, the measurement of the distance walked in six minutes,⁶ to determine if this is a more realistic test of exercise capacity in patients with congestive heart failure.

Patients and methods

Twenty men and six women, mean age 58 (range 36-68), were studied. The cause of congestive heart failure was coronary artery disease in 12, dilated cardiomyopathy in 10, hypertensive heart disease in one, aortic regurgitation in two, and mitral regurgitation in one. There were 10 patients with New York Heart Association class II heart failure and 16 patients with New York Heart Association class III heart failure. All patients were taking diuretic treatment (mean dose: frusemide 42 mg and amiloride 3 mg for those with class II heart failure, frusemide 99 mg and amiloride 12 mg for those with class III heart failure). Other treatment included captopril ($n=8$), nitrates ($n=4$), and digoxin ($n=6$; all had atrial fibrillation). Exclusion criteria were myocardial infarction during the previous six months, evidence of myocardial ischaemia or ventricular tachycardia on exercise testing, obstructive valvular heart disease, pulmonary disease (noted by pulmonary function tests), or inability to exercise for any reason other than dyspnoea or fatigue. Ten normal subjects (seven men, three women) of similar age (range 36-62) were also studied and were found to be free of disease on the basis of history, physical examination, and 12 lead electrocardiography. All patients gave written informed consent to the study.

All subjects exercised twice to familiarise themselves with the treadmill before taking part in the study. Patients were exercised three hours after a

Cardiothoracic Institute and National Heart Hospital, London WIN 2DX

D P LIPKIN, BSC, MRCP, Squibb research fellow

A J SCRIVEN, BSC, MRCP, registrar

T CRAKE, MRCP, registrar

P A POOLE-WILSON, MD, FRCP, professor of cardiology

Correspondence and requests for reprints to: Professor Poole-Wilson.