

Psychotropic prescribing patterns in English prisons: a mixed methods study

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Introduction

The prevalence of mental illness is two to four times higher among prisoners than patients in the wider community (Fazel & Danesh, 2002). Psychotropic prescribing in prisons is a complex and controversial area, where prescribers balance individual health needs against security and safety risks. Part of the problem is that psychotropic medicines can be illicitly traded or sought for their euphoric, anxiolytic or sedative, rather than therapeutic, effects (Hassan *et al.*, 2013). However, there are no current data on prescribing patterns in prisons or how these compare with the wider community.

Aims

The study aimed to determine the prevalence, appropriateness and acceptability of psychotropic prescribing in prisons. The objectives were to determine:

- Rates of prescribing for psychotropic medications, as compared with the wider community.
- The appropriateness of psychotropic prescribing in prisons.
- The perceived satisfaction and acceptability of prescribing decisions to patients and GPs.

Methods

The study combined two elements:

1. A prevalence survey of psychotropic prescribing patterns, using a cross-sectional design.
2. An acceptability study to determine expectations and levels of satisfaction with prescribing decisions among patients and GPs in prisons.

Cross sectional survey

Eleven prisons in England, housing a total of 6052 men and 785 women, participated in a cross-sectional prevalence survey of psychotropic prescribing (Table 1).

On census days, clinical records were used to identify and collect data on all patients in receipt of hypnotics, anxiolytics, antipsychotics, antimanics, antidepressants and CNS stimulants, as listed in chapters 4.1-4.4 of the British National Formulary. The *Prescribing Appropriateness Indicators* (Cantrill, Sibbald & Buetow, 1998) - a set of standardised, validated indicators designed to be applied to prescribing data held in medical records - were applied to each individual prescription to determine appropriateness.

For comparison purposes, the [Clinical Practice Research Datalink](#) supplied data on a random sample of 30,602 patients prescribed psychotropic medicines in the community.

Table 1: Prison sample characteristics

	N	%		N	%
Demographics			Prison type		
Male	6052	88.5	Local	2192	32.1
Sentenced	5898	86.3	Training	2188	32.0
Age (years)			Open	598	8.7
18-24	2012	29.4	Youth Offender	1074	15.7
25-34	1981	29.0	Female	785	11.5
35-44	1387	20.3	Ethnicity		
45-54	877	12.8	White	5620	82.9
55-64	340	5.0	Other	1161	17.1
65+	238	3.5			
TOTAL	6837	100			

Acceptability study

To determine the acceptability of prescribing decisions, researchers recruited 156 men and women attending GP consultations at three prisons during July to October 2013.

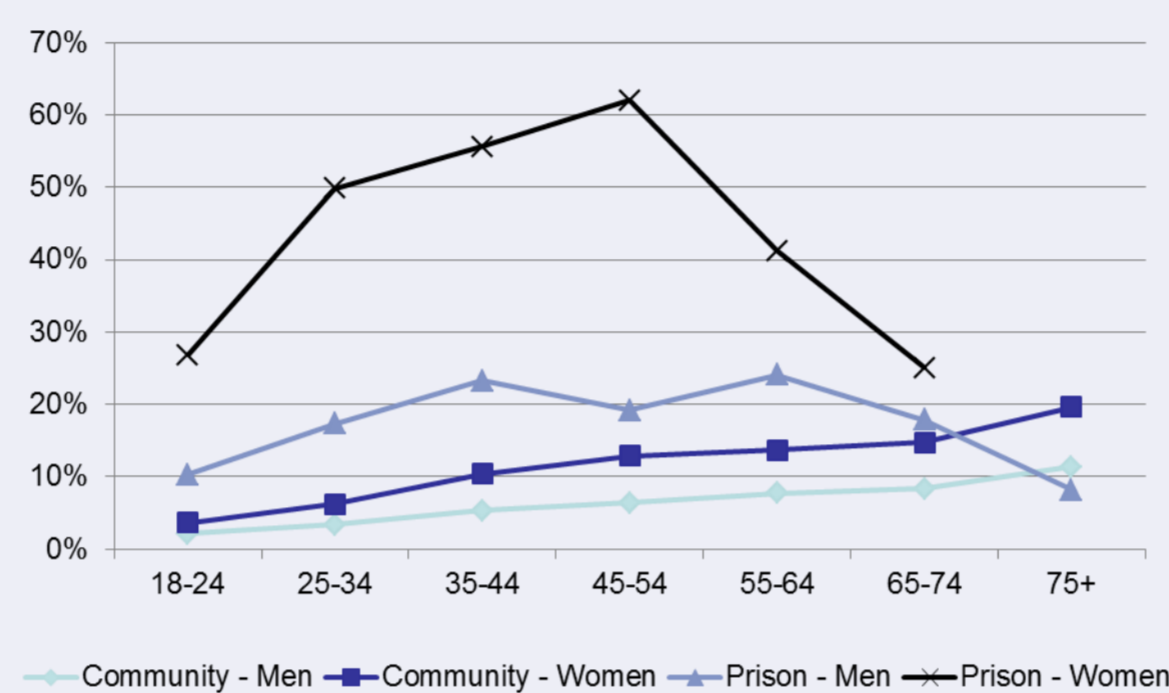
Participants completed pre-and post-consultation questionnaires, which covered reasons for consulting the GP, expectations and satisfaction with outcomes, including prescribing decisions. Doctors completed post-consultation questionnaires detailing any drugs prescribed, indications, perceived pressure to prescribe and satisfaction with prescribing decisions.

Results

Cross sectional survey

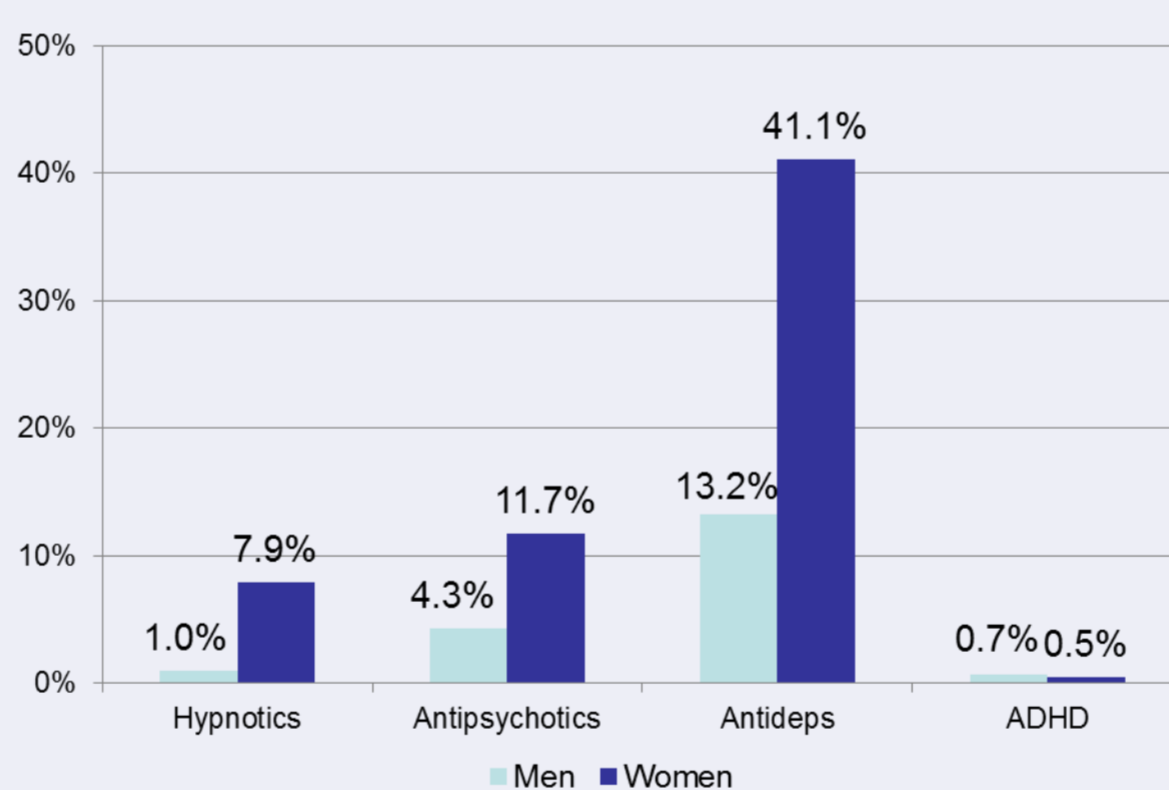
Overall, 17% of men and 48% of women in prison were prescribed at least one psychotropic medicine. Figure 1 depicts the relationship between psychotropic prescribing and age, in prison and in the wider community. After adjusting for age differences, psychotropic prescribing rates were four times higher among men (RR 4.02 CI 3.75-4.30) and almost six times higher among women (RR 5.95 CI 5.36-6.61) compared with patients in the community.

Figure 1: Prison and community psychotropic point prevalence prescribing rates, by age group and gender



Antidepressants were the most commonly prescribed psychotropic medication, prescribed to 13% of men and 41% of women in prison (Figure 2).

Figure 2: Prison psychotropic point prevalence prescribing rates, by BNF chapter and gender



In 65.3% of cases, the indication for the drug was recorded and upheld in the BNF. Compared with other psychotropic medications, antipsychotic prescriptions were least likely to be supported by a valid indication in the patient notes (RR 0.75 CI 0.67-0.83). Almost one in five (19.4%) antipsychotics were prescribed at sub-therapeutic doses, below the level required to treat psychoses. A serious (BNF 'black dot') drug-drug interaction involving a psychotropic medication was noted in 15.7% of prescriptions.

References

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- Hassan L, Edge D, Senior J, Shaw J. *Staff and patient perspectives on the purpose of psychotropic prescribing in prisons: care or control?* *Gen. Hosp. Psychiatry*. 2013; 35(4): 433-438.

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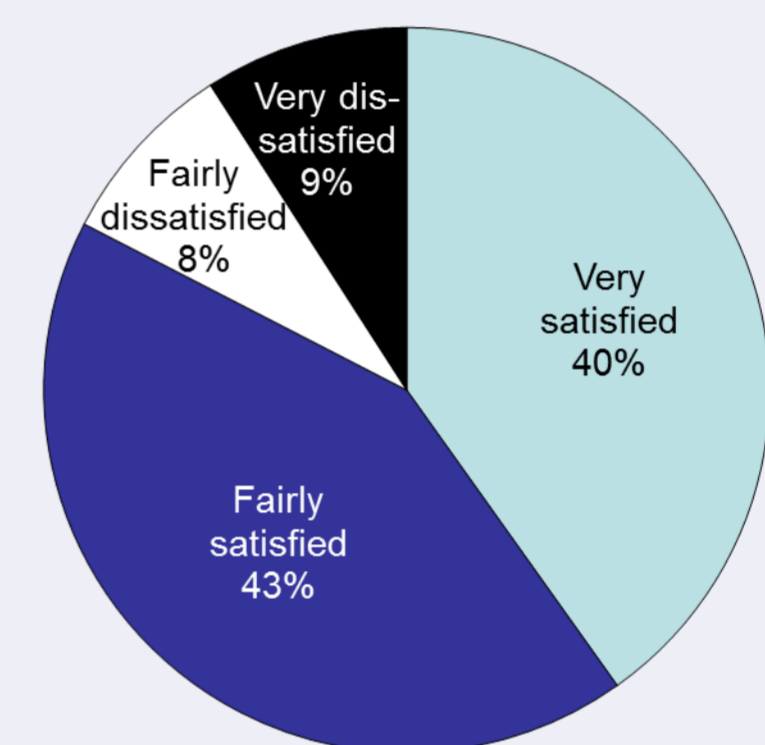
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Acceptability study

Almost a quarter (23.8%) of patients identified a mental health problem as their main reason for seeing the doctor. Before their appointment, two thirds (69.7%) of all patients wished to start, stop and/or change their medication. Patients who identified mental health as their primary problem were more likely than patients who identified other types of health problems to want to start, stop and/or change their medication (RR 1.46 CI 1.23-1.74).

Following the consultation, 83% of patients indicated they were fairly or very satisfied with the outcome (Figure 3). A greater proportion of individuals who identified mental health as their primary problem reported dissatisfaction with the consultation than other patients (RR 1.76 CI 1.01-3.08).

Figure 3: Patient satisfaction with the consultation



In 62% of cases doctors thought that patients definitely (41.5%) or probably (20.5%) wanted a prescription. In 26.7% of cases doctors reported feeling definitely pressured (5.1%) or a little pressured (21.6%) to prescribe. Doctors were more likely to issue a prescription when:

- They thought the patient wanted a prescription (RR 4.2 CI 2.41-7.28),
- They perceived pressure to prescribe (RR 1.66 CI 1.26-2.19).
- The problem was a mental health problem (RR 1.67 CI 1.27-2.20).

Conclusions

Psychotropic medicines were prescribed much more frequently in prisons than in the community, and for a wider range of indications than for which they are recommended. Complex health and security concerns exist within secure settings. Further research is necessary to determine how the optimum balance between psychotropic prescribing and alternative treatments for mental illness may be achieved.

Acknowledgement

This is a summary of independent research funded by the National Institute for Health Research (NIHR)'s Health Services and Delivery Research Programme. Included are emerging findings currently undergoing peer review. The views expressed are those of the author(s) and not necessarily those of the NHS, the NIHR or the Department of Health.



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