

# Can methadone maintenance for heroin-dependent patients retained in general practice reduce criminal conviction rates and time spent in prison?

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## SUMMARY

*A retrospective analysis was made of the criminal records of 57 patients successfully retained in methadone maintenance at two general practices in Sheffield. Their criminal conviction rates and time spent in prison per year were compared for the periods before and after the start of their methadone programme. Overall, patients retained on methadone programmes in the general practices studied had significantly fewer convictions and cautions, and spent significantly less time in prison than they had before the start of treatment.*

**Keywords:** methadone maintenance; general practice; heroin dependence; crime.

## Introduction

THE role of the general practitioner (GP) in the treatment of heroin-dependent patients is the subject of much current debate and policy development,<sup>1,2</sup> as is the interface between the health and criminal justice systems. Recent results published by the National Treatment Outcome Research Study (NTORS) suggest that GPs are successfully treating this group on a range of outcome measures.<sup>3</sup> The aim of this pilot study was to focus on the important area of crime and imprisonment in order to establish two points. First, is it feasible to use criminal record data to measure outcomes in general practice? Secondly, is the self-reported reduction in crime found by previous studies borne out when the actual criminal records are examined?

The intervention studied was pragmatic methadone maintenance treatment in a non-specialist setting. While the evidence in favour of methadone maintenance treatment is strong,<sup>4</sup> very few studies have looked at the so-called 'British system' with its emphasis on a harm-minimisation approach.<sup>5</sup> This study was based in two general practices in Sheffield.

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Submitted: 1 April 1999; final acceptance: 12 July 1999.

© British Journal of General Practice, 2000, 50, 48-49.

## Method

Researchers sat in on routine morning surgeries over a four-week period in July 1998, and GPs asked all patients attending for methadone maintenance to speak to the researcher. Both practices operate according to harm-minimisation protocols, where a methadone mixture of 1 mg/ml is the drug normally used and an upper limit of around 100 ml per day is observed. Adjunct therapy with drugs such as benzodiazepines is not normally initiated. Patients agree to abide by a verbal contract regarding their behaviour, and breaches of contract are handled pragmatically. The philosophy is to retain patients in treatment where possible.<sup>5</sup>

Sixty-nine out of approximately 135 maintenance patients registered at the two practices attended during the consultations studied. Patients were included if they were former heroin addicts who were receiving maintenance or slow reduction methadone. Three patients were in follow-up for recently coming off long-term methadone, six refused to enter the study, and four did not meet the inclusion criteria. Two patients were admitted to hospital before they could be interviewed, of which one died. In total, 57 patients consented and entered the study.

A basic dataset was collected using patient records to establish the date of first reported addiction and the date of starting methadone treatment. Criminal records were accessed using a protocol agreed with South Yorkshire Police. Total numbers of convictions and cautions were analysed before and after initiation of methadone treatment, and theft and fraud crimes were then analysed in the same way. Weeks spent in prison per year were calculated before and after the start of treatment. A conservative allowance of 12 weeks<sup>6</sup> was made for the delay between arrest and conviction. Analysis was of paired data using the Wilcoxon signed rank test.

## Results

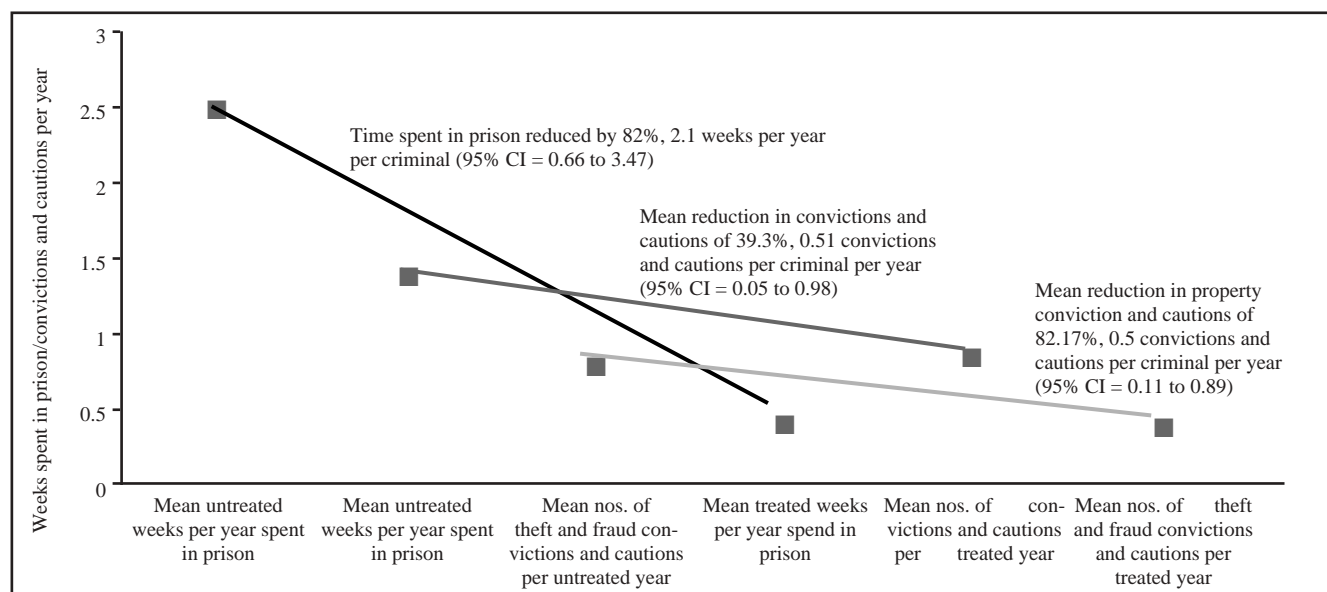
### Participant profile

The two GP practices studied have a special interest in addiction but are otherwise 'ordinary' urban practices.

Of the 57 patients studied, 37 were male and 20 female (median age = 34 years, range = 21-49 years). Fifty-two patients (34 men and 18 women) had criminal records. Of these, 44 had a record which included theft and fraud. Median age of first addiction was 20 years. Mean length of time addicted but untreated was eight years and two months. Mean length of methadone treatment was four years and seven months. No significant difference in participant profile was found between the two practices. The sample may, however, be unusual in that the participants had a relatively long history of addiction.

### Comparison of criminal records before and after methadone

Figure 1 shows mean values with 95% confidence intervals before and after starting methadone treatment for total convictions and cautions per year, for theft and fraud convictions and cautions per year, and for weeks spent in prison per year. Mean



**Figure 1.** Mean convictions and cautions and time spent in prison before and after starting methadone treatment.

total convictions and cautions were reduced by 39.3% (Wilcoxon signed rank test,  $P = 0.03$ ). Theft and fraud convictions and cautions were reduced by 52.17% ( $P < 0.001$ ). Time spent in prison was reduced by 82.8% ( $P = 0.002$ ). Men showed a greater decrease in criminality than women ( $P = 0.029$ ).

## Discussion

This was a retrospective pilot study for a large prospective randomised controlled study. The sample was opportunistic and there may be some element of sample bias. These pilot results therefore need to be treated with caution until results from the mainstage study become available. Nevertheless, this study develops a new methodology and the results support the hypothesis that patients retained in methadone treatment in general practice have a significantly lower rate of criminal convictions and spend significantly less time in prison than before initiation of treatment. While accepting that courts may be more lenient to patients in treatment, this nevertheless provides support from criminal records for the findings of the NTORS study, which suggests that 'crime costs prior to treatment greatly outweighed all of the treatment costs'.<sup>3</sup> This is worthy of further investigation.

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## Acknowledgements

The authors would like to thank Dr Roger Smith, and the South Yorkshire Police and staff at The Crookes Practice and Heeley Green Surgery,

Sheffield. The project was funded by NHS Executive Trent Research and Development.

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