for psychiatric illness. Furthermore, our use of random-effects regression models controlled for further unmeasured individual characteristics that are stable over time. Our finding of a modest but robust effect is meaningful and therefore clinically important, especially when combined with other small effects. Further research into determinants of quality of life will provide other levers of change for improvement, which are unlikely to be staff-rated symptomatology (Lasalvia et al, 2002).

We agree that interventions to improve mental health will have an impact on patient-rated unmet need, which in turn (as we demonstrate) will improve quality of life. However, the advantage of identifying a modest but robust causal relationship is that it highlights the importance of a more comprehensive approach to meeting needs. Mental healthcare that focuses exclusively on treating psychiatric illness can risk neglecting the importance of other consequences of mental ill health, such as discrimination in travel (Driver and Vehicle Licensing Agency, 2005), insurance (Association of British Insurers, 2003) and debt (Meltzer et al, 2002). Mental health services that also address a wide range of health and social needs (as, for example, assessed in our study by the Camberwell Assessment of Need) are more likely to improve quality of life.

Declaration of interest

The Health Services Research Department, where this study was based, receives royalties from sales of the *Camberwell Assessment of Need* published by Gaskell.

Association of British Insurers (2003) An Insurer's Guide to the Disability Discrimination Act 1995. London: Association of British Insurers.

Driver and Vehicle Licensing Agency (2005) *Psychiatric Disorders*, Chapter 4. Swansea: DVLA

Lasalvia, A., Ruggeri, M., Santolini, N. (2002) Subjective quality of life: its relationship with clinicianrated and patient-rated psychopathology. The South-Verona Outcome Project 6. Psychotherapy and Psychosomatics. 71. 275–284.

Meltzer, H., Singleton, N., Lee, A., et al (2002) The Social and Economic Consequences of Adults with Mental Disorders. London: Stationery Office.

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Abstinence-oriented treatment for opiate addiction

Smyth et al (2005) reported outcomes of abstinence-oriented in-patient treatment for opiate users at 2–3 years and found that 23% of patients were abstinent for the preceding 30 days according to self-report without methadone maintenance. At the start of the treatment 49% had injected heroin. There was, however, a group of patients who were truly abstinent: those who had died.

Of the 109 patients who had been located out of the original 149, 5 had died. The total expected number of deaths from the original sample would therefore be closer to 7, but would perhaps be even higher if we assume that those lost to follow-up led more 'chaotic' lifestyles. The authors rightly note that abstinence-oriented treatment is associated with accidental overdose (Strang et al, 2003).

In Glasgow, before the advent of supervised consumption, rates of methadonerelated overdose were around 2.5 per 100 treatment-years. This rate fell to less than 0.5 per 100 treatment-years (Advisory Committee on the Misuse of Drugs, 2000) after the supervised consumption of methadone was introduced. Supervised methadone consumption is known to be effective in reducing the risk of overdose and there is a dose-related effect in reducing mortality, with doses over 75 mg being more effective than doses below 55 mg (van Ameijden et al, 1999). Methadone also reduces the risk of injecting; this in turn reduces viral transmission, which is the other significant risk of increased mortality among drug users (Dolan et al, 1998).

However, the attitude of treatment agencies towards extended maintenance is changing in the direction of delineated treatment episodes (National Treatment Agency for Substance Misuse, 2005). In these days of crack cocaine, the belief that methadone treatment works (Gossop et al, 2003) and saves money (Godfrey et al, 2004) has diminished. This is despite evidence for interventions such as contingency management and cognitive—behavioural therapy using substitute prescribing (Rowan-Szal et al, 2004).

Of course, abstinence should be a potential goal of drug treatment. Deciding those patients for whom abstinence-oriented treatment is appropriate, and the risk of such treatment, is more difficult. There is no reliable evidence for matching

patients to optimal treatments in addiction. However, those who inject, isolated users and alcohol/benzodiazepine co-users are all over-represented in the morgue (Warner-Smith *et al*, 2001). Risk awareness might well be a reasonable first step and for many abstinence might be more dangerous than desirable.

Advisory Committee on the Misuse of Drugs (2000) Reducing Drug Related Deaths. London: Stationery

Dolan, K., Wodak, A. D. & Hall, W. D. (1998)Methadone maintenance treatment reduces heroin injection in New South Wales prisons. *Drug and Alcohol Review.* **17.** 153–158.

Gossop, M., Marsden, J., Stewart, D., et al (2003) The National Treatment Outcome Research Study (NTORS): 4–5 year follow-up results. Addiction, 98, 291–303.

Godfrey, C., Stewart, D. & Gossop, M. (2004) Economic analysis of costs and consequences of the treatment of drug misuse: 2-year outcome data from the National Treatment Outcome Research Study (NTORS). Addiction, 99, 697–707.

National Treatment Agency for Substance Misuse (2005) Business Plan 2005/6. Towards Treatment Effectiveness. London: NTA. http://www.nta.nhs.uk/publications/Businessplan05.pdf

Rowan-Szal, G. A., Bartholomew, N. G., Chatham, L. R., et al (2004) A combined cognitive and behavioural intervention for cocaine-using methadone clients. *Journal of Psychoactive Drugs*, **37**, 75–84.

Smyth, B. P., Barry, J., Lane, A., et al (2005) Inpatient treatment of opiate dependence: medium-term follow-up outcomes. *British Journal of Psychiatry*, **187**, 360–365.

Strang, J., McCambridge, J., Best, D., et al (2003) Loss of tolerance and overdose mortality after inpatient opiate detoxification: follow up study. BMJ, 326, 959–960

van Ameijden, E. J., Langendam, M. W. & Coutinho, R. A. (1999) Dose-effect relationship between overdose mortality and prescribed methadone dosage in low-threshold maintenance programs. *Addictive Behaviors*. 24, 559–563.

Warner-Smith, M., Darke, S., Lynskey, M., et al (2001) Heroin overdose: causes and consequences. *Addiction*, **96**, III3–II25.

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Author's reply: I agree with Critchlow & Nadeem that abstinence-based treatment may only be appropriate for a minority of opiate-dependent patients and that risk awareness is an essential first step for both patient and treatment provider. There is an increased risk of accidental overdose in the