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Medically assisted recovery from opiate dependence within the context of the UK drug strategy: Methadone and Suboxone (buprenorphine–naloxone) patients compared

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ABSTRACT

The focus of drug policy in the UK has shifted markedly in the past 5 years to move beyond merely emphasising drug abstinence towards maximising individuals' opportunities for recovery. The UK government continues to recognise the prescribing of narcotic medications indicated for opiate dependence as a key element of these individuals' recovery journey. This article describes a small, naturalistic comparison of the efficacy of the two most commonly prescribed opiate substitute medications in the UK—methadone hydrochloride (methadone oral solution) and Suboxone (buprenorphine–naloxone sublingual tablets)—for reducing current heroin users' ($n=34$) days of heroin use, and preventing short-term abstainers ($n=37$) from relapsing to regular heroin use. All patients had been prescribed either methadone or Suboxone for maintenance for 6 months prior to intake. Results showed that when controlling for a number of patient-level covariates, both methadone and Suboxone significantly reduced current users' days of heroin use between the 90 days prior to intake and at the 8-month follow-up, with Suboxone yielding a significantly larger magnitude reduction in heroin use days than methadone. Methadone and Suboxone were highly and equally effective for preventing relapse to regular heroin use, with all but 3 of 37 (91.9%) patients who were abstinent at intake reporting past 90-day point prevalence heroin abstinence at the 8-month follow-up. Overall, prescribing methadone or Suboxone for eight continuous months was highly effective for initiating abstinence from heroin use, and for converting short-term abstinence to long-term abstinence. However, the study design, which was based on a relatively small sample size and was not able randomise patients to medication and so could not control for the effects of potential prognostic factors inherent within each patient group, means that these conclusions can only be made tentatively. These positive but preliminary indications of the comparative efficacy of methadone and Suboxone for treating opiate dependence now require replication in a well-powered, randomised controlled trial.

1. Introduction

Guided by two national policy documents (Home Office, 2010; Scottish Government, 2008), the emphasis of UK drug treatment policy has shifted markedly in the past 5 years to move beyond focusing primarily on reducing the prevalence of drug misuse and its associated harms to maximising drug users' opportunities to "choose recovery as an achievable way out of dependency" (Home Office, 2010:2). The Scottish Government defines 'recovery' as "a process through which an individual is enabled to move on from their problem drug use, towards a drug free life as an active and contributing member of society" (Scottish Government, 2008: 23). While the road to recovery, like the formation of drug dependence itself, is strongly predicted by certain social, psychological, and economic conditions, treating the physical aspect of dependence by prescribing narcotic medications indicated for drug dependence is still recognised by the UK government as the best step that can be taken at a population level to instigate and maintain drug misusers' momentum towards recovery.

The UK government's endorsement of medically assisted recovery from drug misuse comes, however, with an expressed appreciation that prescribing medications of high addictive potential risks the possibility that the patient may become dependent on the prescribed medication itself, thereby slowing rather than accelerating the patient's recovery progress. The UK government acknowledge that while there are many thousands of people in receipt of substitute medications who have gained employment, repaired family and social relationships, ceased criminal activity, and ceased illicit drug use, it is believed, though not empirically evidenced, there remains an unacceptably high proportion of patients who have become stuck in opiate substitution treatment for two inter-linked reasons: the patient

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comes to be physically dependent upon his or her substitute medication and many treatment services, including prescribing services, do not provide patients with the motivational or practical support to come off their substitute medications and pursue a drug-free recovery.

A major objective of the UK drug strategy, therefore, has been to change cultural attitudes within treatment services to view clients' cessation from all drug use as just the first step in their journey towards recovery, and to nourish treatment services with the skills, resources and enthusiasm to maintain patients' momentum towards recovery beyond initial medical assistance. The shift in the UK drug strategy has generated new questions for providers of addiction treatment. For example, which types of treatment and service maximise individuals' opportunities for recovery? What factors moderate the efficacy of different substitute medications to instigate recovery? How can medical assistance be best combined with counselling and behavioural therapies? And how should treatment services respond to drug users who are primarily concerned with ceasing their drug use and associated risk behaviour and thus are not yet ready to consider making broader life changes targeted at recovery?

The present study compared the recovery benefits of the two most commonly prescribed narcotic medications indicated for the treatment of opiate dependence in the UK: methadone and Suboxone (buprenorphine–naloxone combination). The UK National Treatment Agency (2009, 2010) report that of the 202,600 drug users who were in contact with drug treatment services in England in 2009/2010, 153,632 (75.8%) were receiving substitute prescriptions, the vast majority of which were for opiate substitute methadone. Methadone substitution has been strongly associated with a number of health and social benefits for opiate users, such as a decreased risk for premature death (Kimber et al., 2010), reduced commission of drug-related crime (Lind et al., 2005), reduced HIV-risk behaviours (Lollis et al., 2000; Bruce 2010), and prolonged engagement with treatment services (Grella et al 1997).

Despite these benefits, concern has long been expressed by advocates of drug-free recovery from drug dependency that opiate substitution in whichever form ultimately impedes the recovery process by prolonging the individuals' consumption of an opiate substitute, and therefore the time over which these individuals are likely to remain drug dependent. Kimber and colleagues (2010) report evidence consistent with this hypothesis; for each additional year of opiate substitution treatment among Scottish opiate-addicted individuals, risk of death before long-term cessation fell by 13% (95% confidence interval [CI]: 9% to 17%) after controlling for the effects of HIV status, sex, calendar period, age of first heroin injection, and history of prison and overdose (Kimber et al., 2010). Opiate substitution treatment was also negatively associated with duration (years) of heroin injecting (i.e. time to long-term cessation): for each year of opiate substitution, duration of injecting increased by 11%. By comparison, patients who did not start opiate substitution treatment injected for a median of 5 years with just under 30% ceasing within 1 year, compared with a median of 20 years for those with more than 5 years of opiate substitution treatment. These findings give grounds to the concern that a drug prescribed to dependent drug users with the aim of reducing some of the health harms associated with opiate misuse may be extending rather than shortening the period over which individuals remain drug-dependent. The challenge facing prescribing services in the light of these and similar data, therefore, is to increase opiate users' access to anti-addictive medications which are both effective for reducing drug-related health harms and facilitating cessation of drug use, including the substitute medication.

A second concern about methadone substitution arises from evidence that a significant proportion of drug users prescribed the drug (estimates as high as 80%) combine its use with street heroin, and consequently increase their risk of a fatal overdose (Bloor et al., 2008). There is some evidence that the proportion of drug deaths in England and Scotland which were attributable to a cocktail of drugs consumed prior to death has steadily increased in the past decade (see Fig. 1), with 36% of drug deaths in Scotland in 2010 attributed to methadone use (National Records of Scotland, 2011). In addition, some Scottish regions now have a higher prevalence of drug use deaths that are associated with methadone use than are associated with heroin use (National Records of Scotland, 2011).

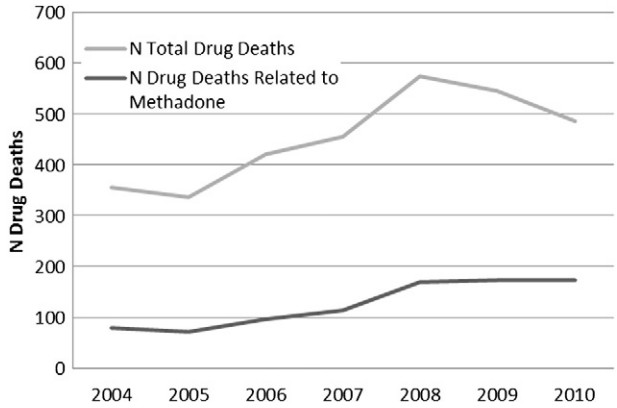

Fig. 1. Total number and number of drug deaths in Scotland related to methadone use, 2004 to 2010 (National Records of Scotland, 2011).

The challenge for drug treatment services, therefore, is to provide medications which both facilitate patients' cessation from opiate use and do not increase their risk of death when combined with street heroin. Suboxone, an opiate substitute which combines buprenorphine (a synthetic opiate which enables the consumer to avoid the unpleasant feelings of drug withdrawal) and naloxone (which when combined with street heroin effectively counteracts the effects of the heroin and moves the patient into a state of opiate withdrawal), may therefore be a valuable, recovery-focused alternative prescribing option to methadone in the pharmacologic treatment of opiate dependence. European Union prescribing information states that effective maintenance with buprenorphine–naloxone, resulting in prolonged treatment retention and reduced heroin use, can be achieved with progressive dosages of 8 mg/2 mg to 24 mg/6 mg per day, with the maximum recommended daily dose not to exceed 24/6 mg, although the best-practice approach of titrating individuals according to clinical effect may mean that some individuals are prescribed higher or lower dosages (Rb Pharmaceuticals Limited, 2010). Recovery-conducive effects associated with Suboxone use include improved cognitive performance compared with methadone use (Rapelli et al., 2007); less intense side effects (O'Connor and Fiellin, 2000); improved decision-making (Pirastu et al., 2005); greater satisfaction with use of Suboxone (Gordon et al., 2008); improved respiratory functioning compared with methadone use (Law et al., 2004); cessation of heroin use (Johnson et al., 1995); more rapid stabilisation (Doran et al., 2005); and fewer drug interactions (McCance-Katz et al., 2006).

This present study describes a naturalistic comparison of the efficacy of methadone and Suboxone for long-term cessation of heroin use and prevention of relapse to regular heroin use in a sample of opiate-dependent patients who had been using either methadone or Suboxone for maintenance for 6 months. Two null hypotheses were tested: methadone and Suboxone are neither differently effective for reducing the frequency of heroin use among current heroin users use over an 8-month period, nor for maintaining the abstinence of patients who had been abstinent from heroin for 3 months at study intake.