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Legally coerced treatment for drug using offenders: ethical and policy issues

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This bulletin discusses the policy and ethical implications raised by legally coercing drug offenders into drug treatment in the community and providing compulsory treatment within the prison system. The bulletin briefly summarises the case for legally coerced drug treatment, describes the different approaches that have been used to implement it, discusses the ethical issues raised by different types of legally coerced drug treatment, and summarises the evidence on the effectiveness of community-based drug treatment with and without legal coercion. The case for, and evidence on, the effectiveness of providing voluntary drug treatment in prisons is then considered. Finally, in the light of the evidence reviewed, the bulletin discusses the NSW Compulsory Drug Treatment Corrections Centre and the challenges in evaluating its effectiveness.

Keywords: Attitude of Health Personnel, Drug Users, Drug and Narcotic Control, Law Enforcement, Mandatory Programs, Program Evaluation, Substance Abuse Treatment

INTRODUCTION

Legally coerced drug treatment is provided as an alternative to imprisonment for drug offenders, that is, persons who have been charged with, or convicted of, an offence to which their problem drug use has contributed; offences such as, drug possession, low level dealing or property offences committed to fund drug use. Drug offenders are treated under the threat of imprisonment if they fail to comply with treatment (Hall, 1997; Pritchard, Mugavin, & Swan, 2007; Wild, Roberts, & Cooper, 2002). This paper focuses on coerced treatment for opioid and other illicit drug offenders because, for over 30 years in Australia, this has been a popular alternative to imprisonment in dealing with such offenders (Pritchard et al., 2007). A similar case can be made for coercively treating alcohol offenders (Hall, 1997) but this bulletin is restricted to coerced treatment of offenders who are problem illicit drug users.

Illicit drug offenders, especially those who inject heroin and other drugs, are over-represented among prisoners in Australia (e.g., Australian Institute of Health and Welfare, 2010; Fazel, Bains, & Doll, 2006; Makkai & Payne, 2003). Most heroin offenders in Australia have committed criminal offences before they first used heroin (Hall, Bell, & Carless, 1993a), but problem heroin use increases the frequency of criminal activity (Ball, Shaffer, & Nurco, 1983; Dobinson & Ward, 1987) while methadone

maintenance therapy (MMT) and drug-free (or abstinence-based) treatment reduces heroin use and criminal activity (Gerstein & Harwood, 1990; Hall, 1996; Lind et al., 2004).

This bulletin discusses the policy and ethical implications raised by legally coercing drug offenders into drug treatment in the community and providing compulsory treatment within the prison system. First, the bulletin briefly summarises the case for legally coerced drug treatment and describes the different approaches that have been used to implement it. Second, the ethical issues raised by legally coerced drug treatment are discussed. Third, the evidence on the effectiveness of community-based drug treatment with and without legal coercion is summarised. Fourth, the bulletin presents the case for, and evidence on, the effectiveness of providing drug treatment in prisons, most of which has been "voluntary" rather than compulsory or coerced treatment. Finally, the NSW Compulsory Drug Treatment Corrections Centre Program and the challenges in providing and evaluating the effectiveness of such treatment are discussed.

THE CASE FOR LEGALLY COERCED DRUG TREATMENT

A major justification for providing coerced drug treatment is that it will reduce offenders' drug use and recidivism (Chandler, Fletcher, & Volkow, 2009). This is especially true for heroin offenders who, if untreated, are very likely to relapse to heroin use on release (Gerstein & Harwood, 1990; Hall, 1996). The advent of HIV/AIDS among intravenous drug users in the early 1980s added a public health argument for coerced drug treatment of offenders who inject drugs. Prisoners who inject drugs are at higher risk of HIV and hepatitis infection prior to imprisonment (Dolan, 1991; Wodak et al., 1992) and are likely to transmit these diseases to other inmates by needle-sharing while in prison, and to their sexual partners after their release from prison. Providing drug treatment under coercion in the community has the added economic benefit of being much less costly and more effective than imprisonment in reducing recidivism (Gerstein & Harwood, 1990; Moore, Ritter, & Caulkins, 2007).

These arguments suggest that, if the community wishes to reduce recidivism among drug dependent offenders, it should provide coerced drug treatment to offenders. This conclusion leaves open issues such as:

- what types of treatment should be provided (e.g., drugfree only or opioid substitution treatment)?
- where would such treatment be best provided (e.g., in the community or in prison)?
- what degree of coercion is permissible to encourage treatment entry?
- what level of coercion leads to good treatment outcomes (e.g., should it be provided as an alternative to imprisonment, or should treatment be ordered by the court?)
- what level of resourcing is required to provide such treatment in ways that do not undermine the effectiveness of drug treatment in the community?

FORMS OF LEGALLY COERCED DRUG TREATMENT

Drug offenders may be coerced into drug treatment at various stages in the criminal justice system (Chandler et al., 2009; Gostin, 1991; Spooner, Hall, & Mattick, 2001). Coercion may occur:

- after detection of an offence but before the person has been charged, if the police do not charge an offender who enters treatment;
- after the offender has been charged, if a court postpones adjudication until treatment is completed;
- after conviction or an admission of guilt. If coercion occurs before sentencing, completing treatment may be made a condition of a suspended sentence; or,
- an offender may be encouraged to enter drug treatment to help him/her remain abstinent from illicit drugs while a

sentence is suspended. In this case, remaining drug-free would be a condition of avoiding a custodial sentence. Enrolment in community-based drug treatment could also be made a condition of early release on parole.

The most coercive option is compulsory drug treatment, in which an offender is ordered by a court to undergo drug treatment either in the community or, more often, in a specially created treatment facility or prison. This was the approach to treating heroin dependence used by the U.S. Federal Government and a number of U.S. states from the mid-1930s until the early 1970s (Gostin, 1991). In these programs, an offender was sentenced to treatment in a secure "hospital" for an extended period; the offender was given no choice about whether or not to be treated or in the type of treatment received. This was sometimes followed by supervised community treatment after release. Failure to comply with supervision resulted in a return to the hospital or to prison (Anglin, 1988; Gostin, 1991).

THE ETHICS OF COERCED DRUG TREATMENT

A 1986 World Health Organization consensus view was that legally coerced drug treatment (Porter, Arif, & Curran, 1986) was legally and ethically justified if: (1) the rights of the individuals were protected by "due process", and (2) if effective and humane treatment was provided. In the absence of due process, coerced treatment could become de facto imprisonment without judicial oversight. In the absence of humane and effective treatment, coerced drug treatment could become a cost-cutting exercise to reduce prison over-crowding. If there were no credible sanctions for non-compliance with the program, then coerced treatment would bring drug treatment into disrepute.

The United Nations Office on Drugs and Crime (UNODC) has recently argued that coerced drug treatment is an acceptable alternative to imprisonment that is consistent with international drug control treaties and supported by evidence of effectiveness (UNODC, 2010). However, UNODC describes long-term compulsory residential drug treatment without the consent of the offender as a form of imprisonment that is not effective in treating problem drug use and is in breach of international human rights agreements.

Some advocates of legally coerced drug treatment have argued that it should be provided in ways that allow offenders two choices: (1) a choice of whether or not they participate in treatment, with those who decline being processed in the usual way by the criminal justice system; and (2) a choice as to the type of treatment, if they agree to be treated (Gerstein & Harwood, 1990). Gerstein and Harwood argued that there was better evidential support for coerced treatment that requires some "voluntary interest" from the offender. Ethical issues in coerced treatment often arise in interactions between the correctional and drug treatment systems (Platt et al., 1988; Rotgers, 1992; Skene, 1987). Treatment staff see the drug offender as their client and hence as someone who should be involved in treatment decisions, is owed an obligation to respect confidentiality, and whose drug use should be dealt with therapeutically rather than punitively. By contrast, correctional and judicial personnel see treatment as directed by the court, and drug use as a breach of a court order that should be reported by treating staff. The effective and ethical use of coerced drug treatment requires a shared understanding of goals of treatment and a clear statement of the roles and responsibilities of correctional and treatment staff for monitoring and reporting upon an offender's progress in drug treatment (Hall, 1997).

COMMUNITY-BASED DRUG TREATMENT: WHAT WORKS?

Detoxification is supervised drug withdrawal that aims to avert adverse health outcomes and minimise the severity of withdrawal symptoms. It is not a treatment for problem drug use, rather it provides a respite from drug use and may be a prelude to drugfree or abstinence-based treatment (Mattick & Hall, 1996).

Drug-free treatment approaches include residential treatment in Therapeutic Communities (TCs), outpatient drug counselling (DC), and participation in self-help groups such as Narcotics Anonymous. All these approaches aim to achieve abstinence from all illicit drugs solely by using group and psychological interventions to maintain abstinence. There have been very few randomised controlled trials for TCs and the few that have been conducted have produced equivocal results (Smith, Gates, & Foxcroft, 2006). Most of the support for their effectiveness is provided by observational studies (Gerstein & Harwood, 1990); such as the Drug Abuse Reporting Program and the Treatment Outcome Prospective Study in the U.S.A., the National Treatment Outcome Research Study in the U.K. (Gossop et al., 2003) and the Australian Treatment Outcome Study (Teesson et al., 2008). In these studies, TCs were generally less successful than opioid substitution treatment (OST) in attracting and retaining dependent heroin users in treatment but they substantially reduced heroin use and crime in those who remained in treatment for at least three months.

Naltrexone is an opioid antagonist that can be used in drug-free treatment by blocking the euphoric effects of opioids. There is typically poor compliance with oral naltrexone (Minozzi et al., 2006). Implantable naltrexone is one strategy to improve compliance that has shown positive results for up to a year in several small trials, but is not yet approved for use in Australia because of uncertainty about its benefits and adverse effects (Comer et al., 2006; Hulse et al., 2009; Kunoe et al., 2009).

Opioid substitution treatment involves substituting a long-acting, usually orally administered, opioid for the shorter-acting injected heroin (van den Brink & Haasen, 2006; Ward, Hall, & Mattick, 2009). Longer-acting oral opioids avoid the oscillation between euphoria and withdrawal that occurs when shorter-acting opioids such as heroin are injected. Methadone Maintenance Treatment (MMT) is the most common form of opioid substitution worldwide. When taken daily in high or "blockade" doses, methadone blocks the effects of heroin, providing an opportunity for individuals to take advantage of psychotherapeutic and rehabilitative services. Its effectiveness is supported by randomised controlled trials and observational studies, all of which have found that patients in MMT decrease heroin use and criminal activity while in treatment (Mattick et al., 2004; Ward et al., 2009). MMT also substantially reduces the transmission of HIV via needle-sharing and protects patients from HIV infection in locations where HIV has spread rapidly among injecting drug users (Ward et al., 2009).

Buprenorphine is a mixed agonist-antagonist that has partial agonist effects similar to those of morphine and blocks the euphoric effects of heroin. When given in high doses, its effects can last for up to three days enabling dosing to occur every two to three days (rather than daily, as with methadone). It is marginally less effective in retaining patients in treatment but approximately equivalent to methadone in effectiveness in reducing heroin use (Mattick et al., 2008). Because of its antagonist effects, buprenorphine has a substantially lower risk of overdose and is easier to withdraw from than methadone (Mattick et al., 2008).

Heroin maintenance treatment (HMT) maintains dependent heroin users on daily injectable heroin (van den Brink & Haasen, 2006). The safety and effectiveness of HMT in treatment refractory patients have been evaluated in a series of randomised controlled trials in Switzerland, the Netherlands, Spain, Germany, Canada and the U.K. In these trials, HMT has been shown to be more effective than MMT in reducing illicit heroin use and crime (Egli et al., 2009).

However, the effectiveness of HMT has a number of caveats:

- the participants in these trials were more criminally involved than standard MMT patients and a prerequisite to entering treatment was failing MMT (Lintzeris, 2009);
- these were small, well-staffed model programs that probably provide optimistic estimates of the effectiveness of HMT in routine clinical practice (Hall, 2005);
- HMT is much more expensive than MMT because of the need to supervise the more frequent injecting of a drug with a shorter half-life;

- it is more cost-effective than MMT only if its effects on crime are included. Critics of HMT can, therefore, argue that it rewards the most criminally-involved heroin users by giving them their drug of choice;
- the higher costs of providing HMT mean that it will remain a second line treatment of modest scale and with limited demand, as indicated by the difficulty in attracting patients into clinical trials. Its public health impact is therefore likely to be modest; MMT and BMT will therefore remain the mainstays of OST (Hall, 2005; Lintzeris, 2009).

In the past several decades, illicit use of cocaine and methamphetamines has increased in many developed countries (UNODC, 2009) and it is now common among offenders in Australia (Makkai & Payne, 2003). Problem stimulant users can develop psychoses and display aggressive behaviour. They are more difficult to engage and retain in treatment than opioid users (Knapp et al., 2007). Substitution treatment using dexamphetamine, methylphenidate and modafinil has produced much less impressive benefits than OST for opioid dependence (Moeller et al., 2008). Psychosocial interventions are the most promising approaches to treating problem stimulant users but the limited evidence does not support a single treatment approach (Knapp et al., 2007). A meta-analysis of 27 randomised controlled studies of 3,663 primarily problem cocaine users in the U.S. found that, compared with drug counselling, clinical management, usual care, information and referral, cognitive behavioural interventions reduced dropouts from treatment and use of cocaine (Knapp et al., 2007). Cognitive behavioural treatments (CBT) and contingency management (CM) (involving the incentive of retail vouchers for clean urine tests) also showed benefits (Knapp et al., 2007). There is less evidence for the effectiveness of interventions for problem methamphetamine users (Lee & Rawson, 2008). As with problem cocaine users, medications are of limited benefit. CBT and CM appear to reduce methamphetamine use while in treatment but it is not clear if these gains are sustained after treatment (Lee & Rawson, 2008).

HOW EFFECTIVE IS LEGALLY COERCED DRUG TREATMENT IN THE COMMUNITY?

The effectiveness of coerced community-based drug treatment in the 1970s and 1980s was assessed in observational studies of heroin and cocaine dependent offenders in the U.S.A. (e.g., Hubbard et al., 1988; Hubbard et al., 1989; Simpson & Friend, 1988). The Drug Abuse Reporting Program (DARP) and the Treatment Outcome Prospective Study (TOPS) found that drugdependent individuals who entered Therapeutic Communities and drug-free out-patient counselling under "legal pressure" (i.e. either on probation or parole) did as well as those who were not under such pressure (Hubbard et al., 1989; Simpson, 1981). De Leon (1988) showed that outcomes for participants entering Therapeutic Communities under "legal pressure" showed the same relationship to time in treatment as those who did not enter treatment under legal coercion.

In the DARP studies, insufficient individuals entered MMT under coercion to investigate the effects of coercion on its outcome. The lack of coerced participants in MMT reflected the prejudices of judges who preferred treatment that aimed to achieve abstinence (Leukefeld & Tims, 1988).

Of the few studies in which offenders were randomly assigned to parole with and without MMT, two studies support the effectiveness of community-based MMT for ex-prisoners (Dole et al., 1969; Gordon et al., 2008). The Dole et al. study showed a greater reduction in heroin use and rates of imprisonment in small groups of offenders who were assigned to MMT in the year after their release. These results were supported in a larger sample in the more recent study conducted by Gordon and colleagues (2008). Both results were supported by earlier observational studies of MMT under coercion in California (Anglin, Brecht, & Maddahian, 1989; Brecht, Anglin, & Wang, 1993) which found that those who enrolled under legal coercion and those who did not showed substantial reductions in heroin use and criminal behaviour. Similar results were reported in other studies (Hubbard et al., 1988; Joseph, 1988).

DRUG COURTS

Drug courts were introduced in the U.S.A. in the late 1980s when judges began to directly supervise treatment of drug offenders (especially of stimulants) who were overwhelming courts and the U.S. prison system (Belenko, 2002; General Accounting Office, 1995). Drug courts quickly spread throughout the U.S.A. and by the turn of the 21st century had been established in Australia (Makkai, 2002), the U.K. (Bean, 2002), and Canada (Fischer, 2003).

There are major challenges in evaluating the effectiveness of drug courts and similar forms of court supervised coerced drug treatment (Belenko, 2002; Covington, 2001; Manski, Pepper, & Petrie, 2001). Much of the research has been conducted in the U.S.A. where, as noted earlier, coerced treatment was introduced to deal with very high rates of imprisonment of stimulant offenders in the late 1980s and 1990s. Most of the research studies used quasi-experimental designs with poorly constructed comparison groups and measured treatment retention and drug use while in treatment or prison rather than offending post–release (Belenko, 2002; Covington, 2001; Fischer, 2003; Harvey et al., 2007; Klag, O'Callaghan, & Creed, 2005; U.K. Drug Policy Commission, 2008; Wild et al., 2002).

The degrees of coercion involved are often not well defined (Klag et al., 2005; Wild et al., 2002). Rates of completion of drug court programs have typically been around 40-50 per cent (Belenko, 2002).

Studies of the effectiveness of drug courts in Australia (Lind et al., 2002; Weatherburn et al., 2008), Canada (Fischer, 2003), and the U.K. (Scottish Government Community Justice Services, 2010) have reported modest impacts on recidivism, prompting some critics to question the exportability of the U.S. Drug Court model (Fischer, 2003). Recent evaluation of drug courts in Glasgow and Fife, for example, were unable to detect any effects of drug courts on recidivism or rates of offending after three years in primarily opioid-using offenders. They also found that drug courts were more expensive than similar orders for supervision in criminal courts (Scottish Government Community Justice Services, 2010). Despite these unfavourable outcomes, staff and participants in the drug courts rated them highly.

An early RCT of a drug court conducted by RAND failed to find any impact on recidivism (Deschenes, Turner, & Greenwood, 1995). Similarly, the early findings from a randomised controlled evaluation of the NSW Drug Court showed very marginal benefits of the Drug Court compared to routine imprisonment (Lind et al., 2002). A later quasi-experimental evaluation of the NSW Drug Court found better evidence of its effectiveness in reducing recidivism; this followed changes to reduce the use of incarceration as a penalty for drug use or violation of court rules and to include OST among the treatment options (Weatherburn et al., 2008).

On balance, there is suggestive evidence from quasiexperimental study designs that drug courts reduce recidivism in the short term of one to three years (Belenko, 2002; Krebs et al., 2007; Turner et al., 2002; Wilson, Mitchell, & MacKenzie, 2006). However, the effects on recidivism (assuming them to be causal) are modest, as one might expect given the recidivist offenders dealt with by drug courts. Aos et al. (2006), for example, reported a meta-analysis of 57 quasi-experimental studies of drug courts that were primarily conducted in the U.S.A. They found that drug courts reduced recidivism by, on average, eight per cent compared with nine per cent in community-based drug treatment (assuming in each case a base rate of 50% recidivism).

Evaluations of drug courts have rarely assessed any unintended adverse effects. These potentially include their effects on access to voluntary treatment and its quality of provision (U.K. Drug Policy Commission, 2008; Wild, 2006), the quality of clienttherapist relationships (Wild, 2006), possible net-widening effects that may increase the number of offenders within the embrace of the criminal justice system (Clancey & Howard, 2006; U.K. Drug Policy Commission, 2008), a lack of access to these programs by disadvantaged offenders such as indigenous offenders in Australia (Clancey & Howard, 2006), and a lack of attention in these programs to the views of participants and their families (Urbanoski, 2010; Wild, 2006).

Only two of these evaluations have assessed the costeffectiveness of drug courts (Covington, 2001; Fischer, 2003) by comparison with imprisonment or alternative forms of treatment. Some assessments have been biased (Fischer, 2003). The NSW Bureau of Crime Statistics and Research evaluation of the costeffectiveness of the NSW Drug Court is a notable exception; it compared the cost-effectiveness of conventional imprisonment with the results of a RCT of the Drug Court (Lind et al., 2002). This analysis showed no difference in the cost-effectiveness of the Drug Court compared with imprisonment, in large part because of the high rate of imprisonment as a penalty for non-compliance with treatment.

Despite their generally weak evaluations, drug courts have enjoyed considerable support among policy makers in many developed countries. Programs established as pilot programs have often been declared a "success" and widely implemented before their effectiveness has been evaluated (Clancey & Howard, 2006; Fischer, 2003). They often become part of the system and then expand their roles in the absence of evidence of effectiveness and often in ways that preclude evaluation (Clancey & Howard, 2006; Fischer, 2003).

PRISON-BASED DRUG TREATMENT

On the basis of public health and safety, a strong case can also be made for providing addiction treatment in prisons, namely, that it may reduce drug use and blood borne virus transmission in prison, and reduce drug use and recidivism after release (Chandler et al., 2009). There is also a strong argument on the basis of human rights that prisoners should have access to the same treatments for their drug problems as other members of the community (Carter & Hall, 2010, in press). Imprisonment also provides an ideal opportunity for a captive population of drug offenders to engage with treatment as a break from the tedium of prison life. Most of the evidence regarding the effectiveness of prison-based drug treatment comes from programs in which prisoners have not been coerced or compelled to enter treatment.

DRUG-FREE TREATMENT APPROACHES

Voluntary drug treatment is often provided in U.S. prisons, although the only treatment options offered are 12-step approaches, group counselling and boot camps. Meta-analyses of these programs clearly show that boot camps do not reduce drug use or recidivism (Aos et al., 2006; Wilson et al., 2006). There is evidence that therapeutic community approaches are more effective, especially those that link prisoners into treatment after release. Aos and colleagues (2006) found that TCs in prison produced a 5.7 per cent reduction in recidivism and the financial benefits of doing so exceeded their costs by US\$7,835 per participant.

Mitchell et al. (2006; 2007) reviewed quasi-experimental evaluations and a small number of RCTs of prison-based TC and counselling programs. They found 66 evaluations, 58 conducted in the U.S.A., three in Australia, three in Canada, one in the U.K. and one in Taiwan. There were 30 evaluations of TCs and 25 of counselling programs. Overall, they found that these programs reduced re-offending by around eight per cent (assuming that the base rate of recidivism was 50%). The programs with the best evidence of effectiveness were TCs; this evidence was provided by the minority of better controlled studies and a number of RCTs. The effects of counselling were also positive but there were fewer studies (n = 25) that used weaker designs and the size of effect declined with strength of the design. The effects on drug use were less clear cut and more marginal overall. Effectiveness was marginally larger in TC and counselling programs in which entry was voluntary. There were too few studies to evaluate the impact of prison-based MMT on recidivism but there was reasonable evidence that these programs reduced drug use while in prison.

PRISON-BASED METHADONE PROGRAMS (PMP)

NSW has one of the longest running prison-based methadone programs in the world. It was established in the late 1980s (Hall, Ward, & Mattick, 1993b; McLeod, 1992) and continues to operate. It has been a controversial program for a number of reasons. First, its therapeutic intent did not fit easily within the custodial milieu of prison and with the punitive beliefs about drug offenders shared by many prison officers (Gjersing et al., 2007; McLeod, 1992). Second, the dispensing of methadone in a prison system raises security issues because prison staff feared that methadone would be diverted onto the prison black market, either voluntarily, or under duress (McLeod, 1992). Third, correctional policies and procedures in the early 1990s provided powerful disincentives to participation in the PMP, for example, by denying participants access to low security prisons, work in prisons, and work-release programs (Hall et al., 1993b).

Early evaluations of the PMP primarily described the program's impact on participants' behaviour while in prison, and on their drug use and recidivism after release; for example, Dolan et al (2003) and Wale and Gorta (1987) reported an RCT of the NSW prison-based MMT in which 191 eligible prisoners were randomly assigned to MMT or a wait-list control for six months. They found reduced self-reported heroin use confirmed via hair testing

among prisoners who were assigned to MMT in the five months of observation in prison.

Retention on methadone programs after release from prison was low in early evaluations of the NSW program, with only a third of ex-prisoners retained in community MMT at the end of a year and a third having returned to prison (Hume & Gorta, 1989). Hume and Gorta (1989) failed to find any reduction in recidivism among the prisoners who had been on the prison methadone program compared to those who had not. In the absence of randomisation, it was difficult to exclude the possibility that the prisoners who entered the methadone program were more severely heroin dependent than those who did not (Hall et al., 1993b). Dolan et al. (2005) reported a four-year follow-up of the 382 prisoners who participated in their RCT of prison-based MMT. Continued enrolment in MMT reduced recidivism, but twothirds dropped out of MMT after release and recidivism was high (87% over 4 years among those still alive after their release).

THE NSW COMPULSORY DRUG TREATMENT CORRECTION CENTRE

The NSW Compulsory Drug Treatment Correction Centre (CDTCC) was established in 2006 to provide a comprehensive program of compulsory rehabilitation for recidivist drug offenders that would treat their drug problems and reduce their recidivism after release (Birgden, 2008). The rationale for this approach was that it would be a more cost-effective approach than imprisonment per se which had failed to affect the drug use and criminality of these offenders (Dekker, O'Brien, & Smith, 2010).

A major problem for those establishing the program at the CDTCC was the lack of evidence on the effectiveness of compulsory drug treatment in prison (Birgden, 2008; Dekker et al., 2010). There were no randomised controlled trials of the effectiveness of these programs, no evidence on their cost-effectiveness, and little guidance on how and to whom to provide such treatment. The most relevant evidence came from studies of the effectiveness of voluntary prison-based treatment programs (Aos et al., 2006).

The political decision to establish the CDTCC seems to have been made in ignorance of the history of compulsory prisonbased drug treatment. This approach was introduced in the U.S.A. in the 1930s when the Public Health Service created two prison hospitals for the treatment of opioid dependence in Lexington, Kentucky (1935) and Fort Worth, Texas (1938) (Campbell, Olsen, & Walden, 2008). Civil commitment for drug dependence was also trialled in California and New York in the 1960s (Leukefeld & Tims, 1988).

Offenders treated in the Public Health Hospitals in Lexington and Fort Worth had very poor outcomes (Maddux, 1988). This was

not surprising since treatment comprised detoxification and six months of psychoanalytic group therapy with no post-treatment supervision. The rate of relapse to heroin use after release was greater than 90 per cent (Maddux, 1988), similar to rates after opiate detoxification (Mattick & Hall, 1996). Compulsory drug treatment in the California Civil Addict Program was followed by close supervision in the community (including regular urinalysis). It substantially reduced drug use and crime and did so sooner than did imprisonment (Anglin ,1988). The New York civil commitment program in the late 1960s was abandoned because of failures in its implementation (Inciardi, 1988).

Practitioners reviewing this experience in the late 1980s (Leukefeld & Tims, 1988) reached the consensus that "long-term client aftercare and monitoring" were essential to successful compulsory drug treatment. They also concluded that the fact that methadone maintenance treatment was also effective needed "to be more clearly presented to personnel in the criminal justice system, since there seems to be a bias against methadone as a treatment approach" (p 247).

OPERATIONAL QUESTIONS FOR THE CDTCC

What type of offender should be treated?

The selection of offenders for compulsory drug treatment presents a challenge for cost-effective prison-based treatment. The CDTCC criteria aimed to treat recidivist drug dependent offenders who received a long enough sentence to allow for intensive rehabilitation while excluding offenders who had a history of serious drug or violent offences. With these criteria, too few offenders qualify. It is unlikely that programs that use these criteria will be cost-effective because a very expensive treatment program for a small number of prisoners can have only a minimal impact on overall recidivism and crime in the community, even if it has a substantial impact on participants' drug use and recidivism.

Where in the prison system should treatment be provided?

A special unit isolated from the main prison makes it easier to provide intensive supervision and intervention. But this decision also limits access to the program and constrains its reach into the prison population, given bed limits and the duration of the program. Making it a mainstream program within the correctional system presents a different challenge - ensuring the quality of program delivery and possibly making it more difficult to restrict participants' access to illicit drugs while they are in the program.

What types of treatment should be provided?

The program content of the CDTCC is based on the findings of meta-analyses of the research literature on the effectiveness

of voluntary, prison-based drug treatment programs (Birgden, 2008). Abstinence is the treatment goal and CBT and contingency contracting are the major therapeutic approaches used. These were all identified as effective modalities in the meta-analysis by Aos et al. (2006) on the effectiveness of prison-based voluntary drug treatment programs (Birgden, 2008).

On the evidence reviewed above, there is a strong prima facie case for including MMT and BMT as part of prison-based drug treatment programs. These include the evidence of their effectiveness in community-based programs, including those in which participants are legally coerced, and the recent evidence from RCTs of prison methadone programs in NSW and New York. There is also a human rights argument for prisoners having the same access to the most effective forms of treatment for problem drug use as people in the community.

Abstinence as a treatment goal is often the political imperative in prison-based drug treatment programs. It is certainly the goal preferred by correctional staff and by a substantial number of prison-based drug treatment staff and by many prisoners in the program (Dekker et al., 2010). However, regardless of the dominant preference, it is not likely that a goal of abstinence will be easily achieved given the history of the program's clientele. Based on the U.S. experience, the success of the program will depend critically upon the extent of post-release support and forging of good connections between the prison program and community-based drug treatment programs. Policy makers must have realistic expectations of the reductions in recidivism that these programs can deliver.

How can the CDTCC be evaluated?

The capacity to learn from correctional drug treatment programs has been limited by our inability to conduct good quality evaluations of their effectiveness and cost-effectiveness. There is the risk that a well-resourced "pilot program" that treats small numbers of offenders may be adopted in the absence of evaluation, or indeed, even the possibility of evaluation. The numbers of participants in the CDTCC program is small and, in the absence of an appropriate comparison group, it has been impossible to evaluate the impact of the CDTCC on drug use in prison or recidivism after release (Dekker et al., 2010). It is also impossible to assess its safety in releasing abstinent opioid offenders into the community. The likely result is either that the program becomes institutionally embedded in the absence of any evidence on its effectiveness, or that it is abandoned when there is a change of government or correctional fashion, or a budgetary crisis. The field of drug treatment in correctional facilities will not be able to learn from the experience. This is often the outcome of policy experiments in criminal justice and corrections.

Does treatment in the CDTCC need to be compulsory?

The sceptical answer to this question is "probably not", for the following reasons. First, it is doubtful that the program is compulsory in any meaningful sense. Certainly, few participants see themselves as being compelled to participate (Dekker et al., 2010), a finding similar to that reported in other studies of drug offenders coerced into drug treatment (Wild, 2006). By its program entry criteria, its clientele have failed to be deterred from using drugs by spending long periods in prison. A failure to comply with the demands of the CDTCC program simply means that they return to the conditions of ordinary imprisonment. Second, a substantial proportion of participants want to be in the program because it allows the early supervised release from prison of participants who complete the program (Birgden, 2008; Dekker et al., 2010). Third, the veneer of compulsion adds to the expense of the program by requiring a court hearing and judicial oversight of the assessment and treatment process. It may be simpler and less expensive to offer the treatment program as a voluntary program for recidivist offenders who meet criteria similar to the existing ones. This would be administratively simpler and less expensive to run. Furthermore, if the program was over-subscribed, then randomisation would permit a more rigorous evaluation of its effectiveness.

CONCLUSIONS

The most plausible argument for legally coercing drug offenders to enter drug treatment is that it is a more effective and less expensive option than imprisonment in reducing drug use and crime. The most ethically defensible form of such coercion is the use of imprisonment as an incentive for treatment entry, and the fear of return to prison as a reason for complying with drug treatment in the community. Offenders should still have a choice as to whether they take up the treatment offer, and, if they choose to do so, they should have a choice of treatment, rather than being compelled to enter a particular form of treatment. Treatment choice is important not just from an ethical point of view but because no single treatment approach is suitable for all offenders. Offenders may benefit more from an approach in which they have a personal investment and which is more relevant to their drug problems. The demands of treatment should not be any more onerous than those of imprisonment.

Compulsory treatment is the most ethically contentious form of coerced treatment because it deprives offenders of any choice, and there is no rigorous evidence of its benefits. It often only provides a limited range of treatment options (usually abstinence oriented or psychosocial) that excludes the most effective forms of drug treatment. For example, those who are opioid dependent are often denied access to, or are forced to withdraw from, opioid maintenance treatment, despite evidence of its effectiveness.

There is a good case for providing voluntary, prison-based drug treatment for recidivist offenders who cannot be treated in community-based programs. The evidence indicates that boot camps have no useful role in such programs, but TCs, CBT and contingency management have a reasonable evidence base provided that offenders are linked into treatment programs after release.

The evidence for the effectiveness of compulsory prisonbased drug treatment is weak. Historical experience is, at best, mixed, and outcomes are poor in the absence of post-release supervision. One must ask the question: is it necessary to make prison-based drug treatment compulsory?

Better evaluations are needed on the effectiveness and costeffectiveness of all forms of drug treatment under legal coercion and especially those that compel participant involvement. It is necessary to ensure that current programs do not waste scarce treatment resources by providing poorly resourced, inhumane and ineffective drug treatment. It is also necessary to avoid making trial programs of coerced drug treatment standard practice in the absence of rigorous evaluations of their safety, effectiveness and cost-effectiveness.

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