



# Kent Academic Repository

**McSweeney, Tim, Stevens, Alex, Hunt, Neil and Turnbull, Paul J. (2007)**  
*Twisting arms or a helping hand? Assessing the impact of 'coerced' and comparable 'voluntary' drug treatment options.* *British Journal of Criminology*, 47 (3). pp. 470-490. ISSN 0007-0955.

## Downloaded from

<https://kar.kent.ac.uk/29876/> The University of Kent's Academic Repository KAR

## The version of record is available from

<https://doi.org/10.1093/bjc/azl087>

## This document version

Pre-print

## DOI for this version

## Licence for this version

UNSPECIFIED

## Additional information

## Versions of research works

### Versions of Record

If this version is the version of record, it is the same as the published version available on the publisher's web site. Cite as the published version.

### Author Accepted Manuscripts

If this document is identified as the Author Accepted Manuscript it is the version after peer review but before type setting, copy editing or publisher branding. Cite as Surname, Initial. (Year) 'Title of article'. To be published in *Title of Journal*, Volume and issue numbers [peer-reviewed accepted version]. Available at: DOI or URL (Accessed: date).

## Enquiries

If you have questions about this document contact [ResearchSupport@kent.ac.uk](mailto:ResearchSupport@kent.ac.uk). Please include the URL of the record in KAR. If you believe that your, or a third party's rights have been compromised through this document please see our [Take Down policy](https://www.kent.ac.uk/guides/kar-the-kent-academic-repository#policies) (available from <https://www.kent.ac.uk/guides/kar-the-kent-academic-repository#policies>).

# **Twisting arms or a helping hand? Assessing the impact of ‘coerced’ and comparable ‘voluntary’ drug treatment options.**

Tim McSweeney<sup>1</sup>, Alex Stevens<sup>2</sup>, Neil Hunt<sup>3</sup> and Paul J. Turnbull<sup>4</sup>

**Accepted for publication:** *British Journal of Criminology*, 2007, 47(3)

Tim McSweeney, Institute for Criminal Policy Research, School of Law, King’s College London, 26-29 Drury Lane, London WC2B 5RL. Tel: +44 (0)207 848 1757, fax: +44 (0)207 848 1770, email: [tim.mcsweeney@kcl.ac.uk](mailto:tim.mcsweeney@kcl.ac.uk).

## *Abstract*

Despite the rapid expansion of options to coerce drug-dependent offenders into treatment - culminating recently in the provisions of the Drugs Act 2005 and the government’s ‘Tough Choices’ agenda - research findings to date are equivocal about their impact in reducing crime. This paper presents UK findings from a pan-European study on this issue. The results – at both national and international levels - reveal that court-mandated clients reported significant and sustained reductions in illicit drug use and offending behaviours, and improvements in other areas of social functioning. Those entering the same treatment services through non-criminal justice routes also reported similar reductions and improvements. The implications of these findings are discussed in the context of recent policy developments.

**Key words:** substance misuse, drug treatment, coercion.

---

<sup>1</sup> Research Fellow, Institute for Criminal Policy Research, School of Law, King’s College London.

<sup>2</sup> Senior Researcher, European Institute of Social Services, School of Social Policy, Sociology and Social Research, University of Kent.

<sup>3</sup> Director of Research for KCA; an Honorary Senior Research Associate at the European Institute of Social Services, School of Social Policy, Sociology and Social Research, University of Kent; Honorary Research Fellow with the Centre for Research on Drugs and Health Behaviour, London; and Chair of the UK Harm Reduction Alliance.

<sup>4</sup> Deputy Director, Institute for Criminal Policy Research, School of Law, King’s College London.

### *Introduction*

Since the 1980s drug dependence has emerged as a strong correlate of offending in many industrialised countries. While the precise nature of the causal links between some forms of drug use and certain types of crime is still contested, it is increasingly acknowledged that drug dependence can amplify the offending rates of people whose circumstances may already predispose them to crime (McSweeney and Hough 2005). Consequently, the criminal justice systems of many developed countries throughout the world have a disproportionate level of contact with substance misusers. In England and Wales, for example, it has been estimated that there are at least a quarter of a million problem drug users (Godfrey et al 2002). Of these, about a third are thought to be under the supervision of the prison and probation services at any one time – constituting around half of the correctional services caseload (NOMS Drug Strategy 2005: 2).

Various measures introduced in England and Wales since the late 1990s have extended the ability of the criminal justice system to coerce drug-dependent offenders into treatment. The use of such coercive measures has culminated recently through the provisions of the Drugs Act 2005 and via the government's '*Tough Choices*' agenda. Prior to this drug treatment and testing orders (DTTOs) had formed a central plank of the New Labour government's manifesto pledge to tackle drug-related crime and were introduced by the Crime and Disorder Act 1998. As a criminal justice intervention, their main aim was to reduce offending using treatment to tackle substance misuse. Since 2001, around 40,000 orders have been imposed by the courts (National Probation Service 2006: 15) while national targets for DTTO commencements grew rapidly from 6,000 in 2001/02 to 16,000 in 2005/06.

DTTOs have since been subsumed within a new generic 'community order' introduced by the Criminal Justice Act 2003, which came into effect from 1 April 2005. A court can now make a community order with a drug rehabilitation requirement (DRR) for offences committed after this date, which can be specified so as to be functionally equivalent to a DTTO – or a less intensive version of a DTTO. While there appears to be more scope for flexibility in managing orders - attendance requirements now range from one contact to 15 hours of supervision each week depending on the needs, risks and seriousness of an offence – provisions of the Act have curtailed sentencers' discretion and the options available to the courts for responding to non-compliance and breaches of a community order in a constructive way.

This paper presents the main findings of an evaluation of quasi-compulsory drug treatment (QCT) options for drug-dependent offenders in England. We define QCT as drug treatment that is motivated, ordered or supervised by the criminal justice system but which takes place outside prisons. The focus of this paper is on the main model of court-ordered treatment in Britain to date: the DTTO. The research formed part of the wider *QCT Europe* study which was funded by the European Commission's Fifth Framework Research and Development programme<sup>5</sup>. Parallel studies were conducted in Austria, Germany, Italy and Switzerland. Information for comparison was also

---

<sup>5</sup> The authors are solely responsible for the content of this paper. It does not represent the opinion of the European Commission nor the other partner institutions involved in the *QCT Europe* study. We are grateful for the comments received from two anonymous reviewers.

gathered from the Dutch SOV experiment which began in April 2001 and permitted the compulsory placement of offenders for up to two years.

*DTTOs: lessons learned and performance in context*

Since being made available both as pilots and nationally there have been a number of studies and commentaries examining both the processes and effectiveness of the orders (see McSweeney and Hough (2005) for a recent overview). These studies have suggested that, while many offenders fail to complete DTTOs, those who are successfully retained on programmes report reductions in illicit drug use, offending and injecting risk behaviours, and improvements in physical and psychological wellbeing – at least in the short-term. Existing studies focusing on outcomes can and have been criticised on methodological grounds, as most fail to meet Campbell/Cochrane criteria (Holloway, Bennett and Farrington 2005)<sup>6</sup>. Methodological weaknesses in the existing research that the current study sought to avoid included: compounding selection bias by using comparison between completers and non-completers as an indicator of programme effect; ignoring the potential difference between legal status (QCT or ‘voluntary’<sup>7</sup>) and perceptions of legal pressure; failing to consider potential confounding influences on outcome; and not combining qualitative and quantitative information in order to inform analysis.

To date, DTTO performance and completion rates have rarely been considered in the context of successful discharge rates from drug treatment generally. Figures from the National Drug Treatment Monitoring System (NDTMS) reveal that 17% of clients contacting specialist drug treatment services in England during 2003/04 were referred by criminal justice agencies – DTTOs accounted for 3% of treatment admissions - and crucially, that treatment completion rates for criminal justice referrals (26%) were comparable with the national average (29%) (National Treatment Agency 2005: 22). Completion rates for DTTOs have risen from 25% in 2002 to 32% in 2004 (Home Office 2005: 59), although with wide variations between probation areas: annual completion rates range from 10% to 51% (National Probation Service 2005: 17). The two-year reconviction rate from DTTOs issued in 2002 was high at 89% (Cuppleditch and Evans 2005). While these rates are clearly disappointing and do little to inspire confidence in the use of QCT measures, the impact of DTTOs on offending has been placed into some context following the recent publication of reconviction data for the National Treatment Outcome Research Study (NTORS) sample: this latest study revealed that three-quarters (74%) of those convicted during the five years prior to treatment admission had acquired at least one conviction in the period after treatment entry (Gossop et al 2006: 2).

However, the apparently low rates of completion for comparable ‘voluntary’ treatment and the problems associated with using reconviction as an outcome indicator have not been effectively communicated to sentencers, practitioners and the

---

<sup>6</sup> These standards are exceedingly difficult to achieve in this area, partly due to the unwillingness of sentencers to randomise sentencing. Even if they were achieved, the resulting studies would not necessarily provide useful information on how to reduce re-offending amongst drug-dependent offenders (Pawson and Tilley 1998).

<sup>7</sup> We use inverted commas around ‘voluntary’ to acknowledge that people may perceive pressure from a variety of sources when they enter treatment (see discussion of perceived pressure below).

public in order to support the credibility of disposals like DTTOs as effective alternatives to imprisonment.

### *Hypotheses*

The main hypotheses to be tested were derived from a review of the international (including non-English language) research literature on the use of QCT measures, undertaken as part of the wider study (Stevens et al 2005). These were:

1. That the QCT group show reductions in drug use and offending behaviours, and improvements in health and social functioning.
2. That the comparison group (of people undergoing comparable drug treatment without QCT – the ‘voluntary’ group) show reductions in drug use and offending behaviours, and improvements in health and social functioning.
3. That, if other factors are statistically controlled, the QCT group has better retention than the comparison group.
4. That, if other factors are statistically controlled, the QCT group has different drug use and offending outcomes than the comparison group.

While it was not possible to randomise sentencing of drug-dependent offenders, or to create a comparable and contemporaneous sample of offenders who were not given a DTTO, we considered it appropriate to compare the QCT group to a group of treatment ‘volunteers’. This is on the assumption (supported by our literature review) that ‘voluntary’ treatment is more effective than no treatment in leading to reductions in drug use and offending (see also Prendergast, Podus, Chang and Urada 2002 for a meta-analysis of studies which compared treatment to no treatment). If treatment under QCT has similar or better outcomes in reducing drug use and offending, then we can have some confidence in assuming that it is also effective.

### *Method*

Researchers recruited a random quantitative sample of 157 people who entered community-based drug treatment at one of ten research sites across London and Kent between June 2003 and January 2004: 89 (57%) of them having done so as part of a court order. These community-based sites were purposively selected to allow comparisons between DTTO and ‘voluntary’ clients at the same treatment sites.

These respondents were all asked standardized and validated questions about their physical and psychological health, housing, education, employment, relationships, substance use, offending, victimisation, any pressure they felt to be in treatment, self-efficacy and their motivation to change their drug-using behaviour. We used adapted versions of the European Addiction Severity Index (EuropASI) (Kokkevi and Hartgers 1995), questions on perception of pressure from Simpson and Knight’s (1998) initial assessment form for correctional treatment, the Proactive Coping Inventory (Greenglass et al 1999) and the Readiness to Change Questionnaire (RCQ) (Rollnick et al 1992). We used the procedure suggested by Koeter and Hartgers (1997) to calculate a composite score (with a possible range of 0 to 1) for drug use from various related questions in the EuropASI. We used the RCQ to divide the sample into groups according to whether their reports fitted into the pre-

contemplation, contemplation or action stages of Prochaska and DiClemente's (1983) 'cycle of change'.

Sixty per cent of respondents were interviewed within two weeks of starting treatment (mean 2.7 weeks). At intake (t1), questions about recent behaviour and circumstances referred to the 30 days prior to arrest for those in QCT and the 30 days prior to treatment admission for the 'volunteers'. These questions were administered again at six (t2), twelve (t3) and 18-month (t4) follow-up intervals. Like many previous studies in this area, the current research fell victim to a degree of sampling and response bias: we managed to interview just over half (52%) the eligible clients offered treatment across our 10 research sites (most of those we did not interview either failed to present to treatment or did not stay long enough for us to interview them) and response rates ranged from 68% (n=106) at t2, to 64% (n=100) at t3 and 61% (n=95) at t4. However, 82% (n=128) of the sample was re-interviewed on at least one occasion post-admission to treatment. In total, 458 quantitative interviews were completed.

It is difficult to draw any firm conclusions about the likely impact of sampling bias on our findings. We do not have any reliable information on whether these non-engagers were accessing other forms of support elsewhere; however, it does not seem unreasonable to assume that they may have represented some of the most intractable and needy people. All fieldwork interviews were undertaken by the authors throughout, each with extensive experience of working with and/or interviewing drug users and offenders. We are confident this helped greatly in our efforts to build a degree of rapport and trust, and ensured continuity throughout the life of the study. Our judgement is that this helped to minimise bias towards exaggerating drug problems prior to treatment, and down-playing criminal involvement at follow-up. Recent work by Farrall (2005: 1) on this matter, for example, suggests that while some offenders deliberately conceal their involvement in crime "[g]enerally speaking, the relationship between self-reported offending and officially recorded convictions [is] very close". Similar conclusions have also been reached using data from the NTORS sample of treatment seeking drug users (Gossop et al 2006).

In-depth individual and focus group interviews were also undertaken with a theoretically assembled sample of 38 health and criminal justice professionals involved in the implementation, development or delivery of QCT and 57 criminally involved drug users drawn from the quantitative sample who had been mandated to treatment by the courts. Interviewees were selected purposively using a deliberative approach that sought to include those representing a range of features and interests that were thought to be of relevance.

## Results

### *A profile of the intake sample*

Most (n=120) respondents were male with an average age of 31 years; those serving a DTTO were slightly younger (30) than members of the comparison group (32), though not significantly so. Four-fifths (n=125) described themselves as 'white' and three-quarters (n=119) had never been married. More than half (n=82) left school before the age of 16. Nearly three-quarters (n=112) had mostly been unemployed during the last three years. Just over one-third (n=57) experienced ongoing medical problems. These commonly included asthma, hepatitis C, epilepsy, deep vein thrombosis and bronchitis. More than half (n=83) reported that they had experienced serious depression and anxiety in the past month. People who were not on a DTTO tended to report worse mental health than those who were. For example, during their lifetime the 'voluntary' group were more likely to report having been prescribed medication for psychological or emotional problems (n=39; 57%) than the DTTO group (n=28; 32%) ( $\chi^2 = 10.56$ , d.f. = 1,  $p < 0.01$ ). They were also more likely to have experienced serious thoughts of suicide ( $\chi^2 = 7.89$ , d.f. = 1,  $p < 0.05$ ); to have actually attempted suicide ( $\chi^2 = 5.14$ , d.f. = 1,  $p < 0.05$ ); and have more lifetime suicide attempts than the QCT group ( $t = -2.20$ , d.f. = 155,  $p < 0.05$ ). Nearly three-quarters (n=111) of the people we interviewed had previously been treated for drug or alcohol dependency. There was no significant difference in previous exposure to treatment between people on DTTOs (69%; n=61) and 'volunteers' (74%; n=50). Four-fifths were in receipt of either day care (n=66) only or in combination with a substitute prescription (n=60) at the time of first interview<sup>8</sup>.

Those receiving court orders in our ten sites were more likely to be male ( $\chi^2 = 17.35$ , d.f. = 1,  $p < 0.001$ ) and had indicators of poor prognosis across a number of important domains on admission to treatment: they were more likely to be homeless ( $\chi^2 = 7.12$ , d.f. = 1,  $p < 0.01$ ); using a wider range of drugs ( $t = 2.88$ , d.f. = 155,  $p < 0.01$ ); making more frequent use of heroin and crack ( $\chi^2 = 18.08$ , d.f. = 1,  $p < 0.001$ ); injecting more frequently ( $t = 3.32$ , d.f. = 103,  $p < 0.01$ ); spending more on drugs ( $t = 4.12$ , d.f. = 154,  $p < 0.001$ ); were more criminally active ( $t = 6.73$ , d.f. = 149,  $p < 0.001$ ); and more likely to be at an earlier stage in the 'cycle of change' ( $t = .54$ , d.f. = 1, ns). Their mean composite drug use score was also higher (0.22 compared to 0.15) (Mann-Whitney  $U = 1597.5$ ,  $p < 0.001$ ). These important differences imply that people receiving court orders are likely to find it more difficult to be retained and succeed in treatment. However, it also hints at the possible rewards: that potential gains - in terms of reduced drug use and crime - are likely to be greater among this group, if only they can be retained long enough to succeed in treatment.

### *The role of coercion*

Two-fifths (n=35) of those receiving a DTTO in our sites said they did not feel any external pressure to be in treatment, and nearly half (n=32) the people who entered treatment through non-criminal justice routes said they did feel pressure or duress,

---

<sup>8</sup> Available NDTMS data suggests that structured community-based day care support of this type was accessed by 21% of DTTO cases in England during 2003/04, making it the second most common treatment modality for DTTO cases after specialist prescribing (36%). By contrast, only 4% of DTTO cases are reported to have accessed residential rehabilitation during the same period. However, data on treatment modality were not recorded in 28% of cases (Roxburgh (2005) pers. comm.).

mostly from family and friends. While there may be important differences between these various sources of pressure, it should not be assumed that court-mandated treatment forces people to access support when they do not want it or that those entering treatment from other routes do so entirely of their own volition. This supports similar findings on perceived pressure amongst drug treatment clients by Wild, Newton-Taylor and Alleto (1998). Across the entire *QCT Europe* sample of 845 respondents, 65% (n=271) of the ‘volunteers’ perceived some external pressures to enter treatment while 22% (n=96) of the QCT group reported experiencing no such pressures. Findings from our intake interviews across the five partner countries suggests that entering drug treatment as part of a court order does not necessarily damage the likelihood of someone succeeding in treatment by reducing their motivation. While there is a link between legal status and perceived pressure, this does not seem to reduce people’s motivation to change (Stevens et al, in press). In the English sample, there were no significant differences between QCT and ‘voluntary’ groups in the stages of motivational change at intake: 19% (n=30) were assigned to the pre-contemplation stage; 21% (n=33) to the contemplation stage and the remainder to the action stage.

#### *Retention rates*

Just over half (54%; n=85) the original sample were found to be in some form of treatment at 6-month follow-up<sup>9</sup>, with no significant difference observed between QCT (53%; n=47) and comparison (56%; n=38) groups. Most (69%; n=59) of those still in treatment were in receipt of some form of outpatient opioid substitution - typically methadone. Just over one in four (27%; n=43) still attended the same treatment service as at intake. The remainder either choose to leave the service they had accessed at intake of their own volition (26%; n=40), because they finished their treatment plans (17%; n=27), for ‘other’ reasons (17%; n=26) or because they were excluded from treatment/had their orders revoked (13%; n=21). We observed no statistically significant differences in the average length of time retained in treatment between the two groups during the first six months of the study (QCT mean of 117 days (n=87); comparison mean of 129 days (n=68)). This was also true for those no longer found to be in treatment at first follow-up (QCT mean 86 days (n=42); ‘volunteers’ mean 107 days (n=30)). This trend was maintained for the duration of the 18-month study; although on average the comparison group were engaged in treatment for longer (188 days) than the QCT cohort (151 days) over this period, the difference observed was not statistically significant.

The majority of interviewees from both groups continued to access at least one form of drug treatment throughout the course of the study (85%; n=97). Just under one in five (17%; n=24) respondents reported accessing residential treatment at some point during the follow-up period.

---

<sup>9</sup> We also collected information on retention from treatment agencies for those sample members whom we did not interview at t2.



### *Offending outcomes*

There were substantial overall falls in the reported number of days involved in criminal activity throughout the follow-up period for both groups: from an average (mean) of 102 days in the six months preceding treatment (n=154) to 29 days in the last 180 days of the study (n=94). The most substantial reductions were observed among the QCT group: from an average (mean) of 132 days at t1 (n=89) to 35 days at t2 (n=64). Overall, there was a 71% reduction in levels of self-reported offending among the QCT cohort (mean 38 days at t4 (n=47)). Reductions on a similar scale (69%) were also reported by the comparison group (from a mean of 61 days in the six months prior to t1 (n=65) to 19 days at t4 (n=47)). There was also a fall in the number of different crimes reportedly being committed.

Rates of self-reported involvement in *any* offending<sup>10</sup> fell from 74% (n=151) in the 30 days prior to arrest/admission to treatment to 30% (n=93) at 18-month follow-up. As figure 1 illustrates, there were corresponding reductions in the average number of days involved in crime during the 30 days before interview for the duration of the study.

[Insert figure 1 here]

We used the Wilcoxon signed-ranks test to assess the significance of changes in self-reported offending within the two groups over time. There was a significant reduction in offending reported by the QCT group between intake and t2 interview ( $z = -6.46$ ,  $p < 0.001$ ,  $r = -.57$ ) and intake and 18-month follow-up ( $z = -5.15$ ,  $p < 0.001$ ,  $r = -.53$ ). Among the comparison group there was a significant overall reduction in offending reported between t1 and t4 interviews ( $z = -2.42$ ,  $p < 0.05$ ,  $r = -.26$ ). There was no significant change in self-reported offending between t2 and t4 for either group.

Mallinckrodt et al have described how ‘last observation carried forward’ (LOCF) has historically been a common method of handling missing data in longitudinal clinical trials “because of its simplicity, ease of implementation, and the belief that the potential bias from carrying observations forward leads to a ‘conservative analysis’” (2003: 755)<sup>11</sup>. The technique is used when a respondent or patient drops out of a longitudinal study by replacing their missing data with their last observation. Applying LOCF in this way to the 51 (32%) respondents we were unable to interview at t2 may give us a better estimate of the likely affect on offending behaviour in the 30 day period before first follow-up. This is, of course, a conservative estimate and assumes that exposure to treatment will have had no impact on the offending behaviour of those whom we did not interview at t2. Using different imputation methods (such as mean imputation (Twisk 2003: 213)) would merely increase the scale of the reductions further still.

---

<sup>10</sup> Using an amended version of the EuropASI crime module, respondents were asked about their involvement in 16 different crimes during each interview.

<sup>11</sup> Mallinckrodt, among others, has also highlighted the need for caution in using such imputation methods to compensate for missing data (see Carpenter et al (2004) for a discussion).

Nevertheless, using LOCF would suggest a 57% reduction in reported offending in the 30 days before t1 and t2 interview for the entire sample (from a mean of 17.3 days at t1 (n=154) to 7.5 days at t2 (n=153)) ( $z = -6.58, p < 0.001, r = -.38$ ). While a fall of 31% was observed among the comparison group (from a mean of 9.3 days at t1 (n=62) to 6.4 days at t2 (n=64)) ( $z = -1.64, ns, r = -.15$ ), the rate of reduction amongst the QCT sub-sample was more than double this at 64% (from a mean of 22.9 days at t1 (n=89) to 8.3 days at t2 (n=89)) ( $z = -6.46, p < 0.001, r = -.48$ ).

In addition, calculating a ratio for days involved in crime during the previous month as a proportion of days at liberty in the community to offend revealed that reductions on this scale were also sustained when adjustments were made for time at reduced risk (i.e. during periods of imprisonment or inpatient treatment).

In relation to criminal justice outcomes there were a number of important differences observed between the two groups under study. For example, respondents from the QCT group were more likely to have reported continued involvement in crime post-admission to treatment than members of the comparison group (QCT 83% (n=62); comparison 57% (n=30)) ( $\chi^2 = 10.44, d.f. = 1, p < 0.01$ ), and to have been arrested (QCT 73% (n=55); comparison 43% (n=23)) ( $\chi^2 = 11.69, d.f. = 1, p < 0.01$ ) and imprisoned (QCT 61% (n=50); comparison 21% (n=12)) ( $\chi^2 = 21.69, d.f. = 1, p < 0.001$ ) at some point during the follow-up period.

Reduced levels of self-reported illicit drug use (excluding cannabis and prescribed methadone) or reporting abstinence at first follow-up was one of only three factors found to be correlated in a positive way with desistance from offending ( $r_s = .287, p < 0.01$ ); the others were still being in treatment ( $r_s = .261, p < 0.01$ ) and having achieved abstinence voluntarily at some point in the past (not as a result of treatment) ( $r_s = .205, p < 0.05$ ). Being a crack user ( $r_s = -.250, p < 0.05$ ) or a poly (heroin and crack) user ( $r_s = -.238, p < 0.05$ ) were both negatively associated with improved offending outcomes. In addition, those entering treatment at one particular site were significantly less likely to report having desisted from offending during the month before first follow-up than respondents elsewhere ( $r_s = -.298, p < 0.01$ ).

To check the influence of legal status group and other factors on offending outcomes, we ran stepwise binary logistic regression models with a dichotomous variable for whether the respondent reported any offending at 6-month follow-up as the dependent variable<sup>12</sup>. Potential predictor variables were included in the following order: legal status group, standardized composite drug use scores at intake, whether still in treatment at 6-month follow-up, age, gender, stage of change (contemplation and action, with pre-contemplation as the omitted reference category), homelessness at follow-up, spending most of the time with other drug users at both intake and follow-up, and whether the respondent entered treatment in site 2. The variables that were significantly predictive of offending were then included in the combined model reported in table 1. This model included only the 105 respondents for whom data was available at t2. Similar results were found in a model using LOCF data for the entire sample.

---

<sup>12</sup> 69% (n=72) of respondents reported that they had not committed one of 16 different offences covered by an amended version of the EuropASI crime module in the 30 days before t2 interview.

[Insert table 1 here]

This model suggests that, when taking into account these differences, the DTTO group were not significantly more or less likely to report desisting from offending than those belonging to the 'voluntary' comparison group. As the differences between the groups in age, motivation and whether they were still in treatment at t2 were not significant, it would appear that it is the more severe initial drug problems of the QCT group at intake that was influential in their continued offending in the six months after treatment entry. However, the value of Nagelkerke R square for this model was 0.384, suggesting that most of the variance in offending outcome was left unexplained by this model. This supports the notion that the key factors in promoting desistance from drug use and offending behaviours are subtle, fluid and difficult to measure, and points towards additional – largely unobserved or accidental – factors playing a prominent role in influencing outcomes (see Maguire and Raynor (2006) for an overview of the key features of current models of desistance).

The self-reported reductions in offending presented above for both QCT and 'voluntary' groups are striking. Whilst some researchers, such as Hammersley et al (1989) and Burr (1987), have previously argued for sub-cultural explanations of the close linkage between drug use and offending behaviours, the qualitative accounts of many respondents were often more consistent with an economic-compulsive perspective (Goldstein 1985), where dependence provided the motive for continued and escalating involvement in acquisitive offending:

*“Not for me cos I mean...all right I was doing crime [before becoming drug dependent] but nothing like to the extent of what I was doing, you know. So no, mine's gone hand in hand. I mean if I could solve my drug problem then that would be my crime problem out of the window.” (t1Client222)*

Conversely, Davies (1992) and Hammersley (2002) have considered how, for a range of personal and socially functional reasons, problem drug users might develop these narratives in order to provide rationales, justifications and convenient explanations for actions and behaviours they would rather not take personal responsibility for.

#### *Illicit drug use outcomes*

Consistent with the crime reductions shown above, the average (mean) number of reported days consuming *any* drug fell throughout the study period: from 28 days prior to intake, to 22 days at t2 and t3, and averaging 20 days at last interview. However, in order to differentiate between the range of substances being used (including those that were prescribed) we excluded alcohol, cannabis and prescribed methadone from our analysis. As figure 2 below indicates, this approach revealed even greater decreases in levels of use; with the largest reductions observed in the QCT group.

[Insert figure 2 here]

Again, we used the Wilcoxon signed-ranks test to assess the significance of self-reported changes in illicit drug use within the two groups over time. Consistent with the results on changes in offending reported above, there were significant reductions in illicit drug use reported by the QCT group between intake and t2 interview ( $z = -5.26$ ,  $p < 0.001$ ,  $r = -.49$ ) and 18-month follow-up ( $z = -4.41$ ,  $p < 0.001$ ,  $r = -.48$ ). Among the comparison group, there was a significant overall reduction in self-reported illicit drug use between t1 and t4 interviews ( $z = -1.97$ ,  $p < 0.05$ ,  $r = -.20$ ). There was no significant change in self-reported illicit drug use between six and 18-month follow-up for either group. Again, reductions in reported illicit drug use on this scale were sustained when adjustments were made for time at reduced risk.

Using LOCF to compensate for missing data at t2 suggested a 24% decrease in illicit drug use during the 30 days before t1 and t2 interview across the sample (from a mean of 25.4 days at t1 ( $n=157$ ) to 19.2 days at t2 ( $n=157$ )) ( $z = -5.00$ ,  $p < 0.001$ ,  $r = -.28$ ). While a reduction in the order of 10% was observed among the comparison group (from a mean of 21.4 days at t1 ( $n=68$ ) to 19.3 days at t2 ( $n=68$ )) ( $z = -1.51$ , ns,  $r = -.13$ ), rates of illicit drug consumption for QCT respondents had fallen by one third (from a mean of 28.5 days at t1 ( $n=89$ ) to 19.2 days at t2 ( $n=89$ )) ( $z = -5.26$ ,  $p < 0.001$ ,  $r = -.39$ ) using this approach.

Both groups also reported commensurate reductions in their use of heroin and crack throughout the study period, in the composite drug use score, in reported expenditure on illicit drugs (from a median of £1200 at t1 ( $n=156$ ) to £30 at t2 ( $n=104$ )) ( $z = -6.47$ ,  $p < 0.001$ ,  $r = -.45$ ) and in the range of different drugs being used. The largest reductions were observed among QCT respondents, who tended to reported higher levels of use at intake.

As reported above, there was a correlation observed between reductions in illicit drug use and a cessation of offending behaviour ( $r_s = .287$ ,  $p < 0.01$ ). However, we were unable to identify a single additional factor found to be positively correlated with a reduction or cessation of illicit drug use at first follow-up. While there was a weak positive correlation between entering treatment as part of QCT and improved drug use outcomes - this finding was not statistically significant ( $r_s = .191$ , ns). When other potential influences on illicit drug use outcomes were taken into account, the DTTO group was not significantly likely to have any better (or worse) outcome than the 'voluntary' comparison group. By contrast, there was a negative correlation for those spending most of their free time with others experiencing drug and alcohol problems ( $r_s = -.227$ ,  $p < 0.05$ ). As with offending outcomes described above, we again uncovered a site effect on illicit drug use outcomes: those entering treatment at site 2 were significantly less likely to report reduced levels of illicit drug consumption during the month before first follow-up than respondents accessing services elsewhere ( $r_s = -.249$ ,  $p < 0.05$ ).

At intake, half the sample (51%;  $n=64$ ) reported that they had never achieved abstinence as a result of drug treatment, and fewer (40%;  $n=61$ ) had done so voluntarily without recourse to formal intervention. By the end of the study though, 87% ( $n=106$ ) of respondents were able to report a period of abstinence from drugs during the previous 18 months as a result of treatment they had received, while four-

fifths of those who had never been abstinent as a result of treatment beforehand indicated that they had managed to do so on this occasion (n=37). On average the comparison group reported longer periods of abstinence (mean 23 weeks; n=53) than QCT respondents (mean 15 weeks; n=69) during the follow-up period ( $t = -2.27$ , d.f. = 120,  $p < 0.05$ ).

### *Reintegration*

It is long been acknowledged that “environmental supports and stresses can influence outcomes. Peer and family relationships, unemployment and living arrangements can all have an important effect” (Gossop 2005a: 10). At the same time, others have expressed doubts about the capacity of the criminal justice system and treatment services to develop social capital and contribute towards desistance from drug use and offending behaviours; for example, by addressing family problems and providing legitimate employment opportunities (cf. Farrall 2002). Dependent drug users also tend to come from socially excluded groups, for whom it may be more appropriate to talk of a need for integration, rather than reintegration (Raynor 2004: 196). Below, we describe some of the main changes observed in each of these domains during the study period.

In the 30 days before t1, just under a quarter of the sample were homeless (n=37; 25%), and QCT clients were significantly more likely to report this (n=28; 32%) than members of the comparison group (n=9; 13%) ( $\chi^2 = 7.12$ , d.f. = 1,  $p < 0.01$ ). Most were either staying with friends (n=18) or had slept rough (n=10) during this time. By t2, the proportion of respondents stating that they were homeless in the preceding 30 days had more than halved (n=13; 12%)<sup>13</sup> and remained stable for the duration of the follow-up period (14% at t3 (n=14) and 13% at t4 (n=12)).

Levels of satisfaction with current living arrangements grew steadily between t1 (62%; n=98), t2 (66%; n=70) and t3 (76%; n=76) before falling slightly to t4 (70%; n=66). While respondents belonging to the ‘voluntary’ group were consistently more likely to express satisfaction with their living arrangements throughout, these differences were not found to be statistically significant.

By contrast, the proportion of respondents stating that they spent most of their free time in the company of others with drug and alcohol problems remained unchanged between t1 and t2 (27%) (n=41 and 28 respectively), and fell slightly during t3 (23%; n=22) before peaking at t4 (33%; n=30). This rise may have coincided with people spending less structured time in contact with support services towards the end of the follow-up period; perhaps as they became re-associated with old social networks and pre-treatment environments – factors already established as barriers to rehabilitation (Best et al 2003):

---

<sup>13</sup> Using LOCF to assess homelessness at t2 when adjusting for missing data produces a similar reduction (15%; n=24).

*“A bit of boredom, a bit of sort of, a couple of mates I’ve got here, well one in particular didn’t get himself into treatment; he tried and all that like but didn’t get in there so when I came out [of rehab] he was still in the same situation as what he was like a year previous, and started sort of seeing him now and again, and it just made it easier for me [to lapse]...because what he was doing was still using.” (t4Client109)*

There is some evidence from our quantitative interviews to suggest that the quality of respondents’ personal relationships improved over the 18-month period. At each time point we asked whether the interviewee had experienced serious problems getting along with significant others during the last 30 days. This set of questions covered relational problems with parents, partners, children, other relatives, friends and neighbours. There were consistent falls in the mean number of significant others that the sample reported experiencing problems with: from 1.6 at t1 (n=156) to 0.7 at t4 (n=94) ( $z = -4.31, p < 0.001, r = -.31$ )<sup>14</sup>.

The role that employment might play in curtailing drug use and offending careers by reducing both the opportunities and the motivation for such activities remains a source of much debate (McSweeney and Hough 2006). The instinctive appeal offered by employment as a means of promoting desistance (Farrington et al 1986) or regulating the use of illicit drugs (Warburton, Turnbull and Hough 2005) because of the obligations and expectations that a job confers is perhaps enhanced when one considers that three-quarters (n=118) of the sample had neither worked nor studied in the three years prior to intake. However, the prospects of facilitating access to education, training and employment support for such an intractable target group, and the difficulties encountered by those attempting to broker access to these services are perhaps aptly illustrated by the observation that a similar number (78%; n=100) had failed to secure any employment or accessed a course of study at any time during the 18-month follow-up.

#### *Constraints on DTTO performance and outcomes*

The findings presented above suggest that ‘coerced’ treatment can be effective under some conditions - but not under others. Data from our qualitative interviews with both professionals and those subject to DTTOs indicated that the context in which these measures are applied is a critical factor in shaping outcomes, and can help explain the considerable variations in performance that have been recorded to date. It is noteworthy, for example, that our quantitative analysis revealed an important agency effect at work: respondents accessing support from one particular service were the least likely to be retained in treatment beyond 90 days (odds ratio .28,  $p < 0.01$ , CI .12 - .64), and showed inferior drug use and offending outcomes in comparison to those attending services elsewhere.

The research has also illustrated how QCT measures such as DTTOs continue to be hampered by wider implementation issues, and adversely affected by an emphasis on bureaucracy, accountability and performance management. During our fieldwork we

---

<sup>14</sup> Responses of ‘uncertain’, ‘unknown’ and ‘no such relative’ were excluded from our analysis.

encountered instances where capacity within DTTO teams had not expanded at a commensurate rate to cope with increased workloads, while staff recruitment, retention and morale suffered as professional discretion and judgements regarding issues of motivation and suitability for DTTOs were perceived to have been gradually eroded or ignored. These developments in turn exacerbated problems associated with selection processes, as the steep rise in DTTO commencement targets led to a degree of uncertainty about suitability for the order and undermined efforts aimed at identifying those likely to do well. There were also difficulties encountered by DTTO staff which in turn prevented the courts from imposing orders: such as delays completing pre-sentence reports and assessments, or securing funding for treatment.

Delays also occurred post-sentence. Although rapid access to drug treatment was widely acknowledged as an important potential benefit of the DTTO, delays in accessing appropriate substitute prescriptions for opiate dependent clients were consistently identified as a factor likely to increase the chances of relapse and recidivism. In addition, there were also some inconsistencies regarding the availability, appropriateness, type and dosage of prescriptions. Given the lack of options available to some respondents, the increasing emphasis on patient choice in drug treatment – while praiseworthy - seemed something of a misnomer, as those expressing abstinence as a treatment goal often had limited access to buprenorphine (subutex) or naltrexone. Progress in this area was often hampered by the inability or unwillingness of primary health professionals to engage in shared care arrangements with this particular client group. At the same time, DTTO staff were sceptical about the feasibility of any strategy to increase numbers and widen the range of offenders in treatment unless there was a commensurate growth in the capacity of local community-based services to actually deliver these orders.

While there has been considerable – and much needed - investment in drug treatment during recent years, access to both community-based and residential options remained limited in a number of sites. Limited access to a full range of treatment options often led to an over-reliance on one particular approach. In one site, for example, high rates of attrition and low completion rates led to concerns about the appropriateness of an abstinence-based approach. In another area, a lack of community-based services resulted in almost all local clients receiving residential support as part of a DTTO. Some professionals expressed concerns that this limited choice resulted in poorly coordinated care pathways and high rates of attrition, with unmotivated or inadequately prepared clients leaving residential support prematurely. These examples aptly illustrated how any *one* treatment approach will not suit *all* drug users, and underlined the importance of services being commissioned and purchased to meet a range of local needs. Where restricted access to a range of treatment options created one set of problems, uncertainty about the criteria used to determine whether somebody was allocated to residential or community-based support as part of a DTTO created others.

The quality of relationship forged between staff and clients emerged as a key theme from our qualitative interviews in helping us understand some of the processes behind retention and compliance with court-ordered treatment; where the advocacy and practical assistance offered by staff helped to develop a sense of trust, moral obligation and a working alliance by offering some legitimacy to the conditions imposed by QCT (see also Burnett and McNeill 2005). From a professional perspective, the ability of staff to invest time in developing such relationships had

been compromised by increased probation caseloads, competing demands from different initiatives, and an emphasis on compliance and enforcement which had adversely affected performance, reduced levels of face-to-face contact with offenders, and militated against the formation of such an alliance.

Opinions varied regarding the uses of drug testing and court reviews as a means of monitoring compliance with the conditions of QCT. While some were equivocal about their use, others welcomed them as making a positive contribution to engagement and compliance with the overall treatment process. This was particularly true for the court review process - while stressing the importance of continuity, quality and style of interaction between offender and sentencer. When the courts failed to ensure consistency of reviewer, or when the review process was conducted in an impersonal, bureaucratic way, then it was acknowledged that outcomes were unlikely to be improved by this innovative feature of the DTTO.

Concerns have been consistently raised about the appropriateness of applying probation national standards to the DTTO client group (Hedderman and Hough, 2000; 2004). National standards were again updated and tightened further towards the end of the study to state that for those subject to a DRR, an offender manager should give only one warning in any 12-month period of a sentence before commencing breach action (National Probation Directorate 2005: 18). Some professionals regarded their application – particularly during the initial stages of an order – as unrealistic, impractical and often counter-productive. The enforcement conundrum was complicated further by lengthy delays associated with the breach process in responding to non-compliance; a failing highlighted recently by the official inquiry report into the role of Elliot White as an accomplice to the murder of the London financier John Monckton (HM Inspectorate of Probation 2006). This, in the view of many professionals, threatened to seriously undermine the credibility of QCT among members of the judiciary, the public and the client group. Further problems arose for some probation staff as a result of judicial inconsistencies when re-sentencing those failing to comply with DTTO conditions; for example, when offenders had been re-sentenced to lower tariff penalties in response to breach action for non-compliance with the conditions of a DTTO.

The considerable challenges facing organisations working in partnership have been well documented in recent years (Audit Commission 2005). While such problems still persist, accounts of good working relations between health and criminal justice professionals were regularly reported throughout the evaluation, and particularly in those areas that had managed to retain and nurture an experienced group of staff. Data from qualitative interviews suggest that the most promising approaches to QCT shared the following characteristics:

- rapid accessing to substitute prescribing;
- clarity around roles and responsibilities;
- where possible, co-location of health and criminal justice workers;
- joint case management of offenders; and
- established referral links with external agencies.



For some the ‘orthodoxy of partnership working’ (Matrix 2005) served as a barrier to ensuring agencies met their obligations to deliver services in a way that satisfied the needs and requirements of the courts. Many of the problems described to us during the course of the study often arose from ongoing uncertainty around roles and responsibilities, and from concerns about the levels of accountability associated with QCT. For example, the reluctance or inability of some treatment providers to promptly report instances of non-compliance in a consistent manner seemed to regularly frustrate probation staff, and served to undermine the confidence of the courts around compliance and enforcing DTTO conditions.

Many of the problems identified during earlier interviews still persisted - some had even intensified - by the time we had completed our last round of interviews with professionals (in March 2005), highlighting how a number of stumbling blocks relating to procedures, service delivery and organisational issues remained. In order to negotiate these hurdles, those involved in developing and delivering QCT need to ensure that they refine referral and assessment procedures, provide appropriate, timely, well staffed and responsive interventions, clarify treatment objectives, and offer some consistency around procedures for testing, reviews and enforcement. Without sufficient attention, these factors threaten to further undermine the overall effectiveness of the approach. Despite these considerable challenges and pressures, it is important to stress that some models of good practice had emerged and positive outcomes were evidently achieved.

### *Discussion*

The role of coercion in drug treatment remains one of the most controversial and divisive issues in the substance misuse field, raising many philosophical and practical concerns – not least about ethics and effectiveness (Stevens, McSweeney, van Ooyen and Uchtenhagen 2005). Gossop has recently observed that: “[i]t is unclear, at this time, what the outcomes are for drug misusing patients who are treated under coercion.” (2005b: 6).

Findings from our study are timely then as they reveal that, for hypothesis 1, court-mandated clients have shown considerable and sustained reductions in reported substance use, injecting risk and offending behaviours, and improvements in mental health<sup>15</sup>. For hypothesis 2, those entering comparable ‘voluntary’ treatment options also reported similar types of reductions and improvements. These reductions in drug use and offending outcomes were sustained between six and 18-month follow-up and were also observed when adjustments were made for missing data and time at reduced risk. For hypotheses 3 and 4, our data suggest that drug treatment that is motivated, ordered or supervised by the criminal justice system does not have significantly superior retention or different outcomes to ‘voluntary’ treatment when other factors are statistically controlled. However, there appears to be considerable scope for improving arrangements for aftercare and resettlement for both groups. The UK findings are consistent with those of the wider *QCT Europe* study. However, arrangements for improving social integration through employment appear to be more

---

<sup>15</sup> Purely for the sake of brevity, data on injecting risk reductions and improvements in mental health have not been presented here. Full results are reported in Uchtenhagen et al 2006.

developed in the other partner countries - particularly Italy (Uchtenhagen et al 2006; Soulet and Oeuvray 2006; Berto 2006).

Perhaps our most salient observation is that expectations of treatment – whether ‘coerced’ or not - should be realistic; these options are not a panacea for tackling the wider problems of drug misuse and drug-related crime. While it may be true that individual circumstances and responses to structural difficulties might predispose some to criminality and sustain exposure to other forms of social exclusion, these complex and interactive processes are also deeply embedded within, and influenced by, wider social, cultural and economic factors (Seddon 2006). Our reading of the research evidence is that desistance from both substance misuse and offending behaviours are increasingly conceptualised as protracted processes rather than discrete events (Gossop et al 2001; McNeill 2004), with drug treatment forming a crucial but minor aspect in the larger process of recovery (cf. Maruna et al 2004). Furthermore, the notion that the effects of substance misuse treatment may be cumulative and their impact associated with stages in individual drug-using careers is gaining currency (Gossop 2005a). The point to stress here is that desistance from drug use and offending behaviours will not necessarily be triggered by corralling an ever increasing number of drug-using offenders into treatment. And, given the small minority of offenders that are arrested and available for coercion, court-ordered drug treatment is unlikely to have a major impact on overall crime rates (see Koeter 2002; Russell 1994).

These findings should not be interpreted as support for a further encroachment on the principles of treatment as a philosophy within court-mandated provision. The message from our research is not that ‘coercion works’, but that treatment can be an effective alternative to imprisonment. While the current investment in drug treatment for persistent offenders is clearly welcomed, it is important that notions of distributive justice are observed: drug treatment provision should not be compromised for the large proportion of dependent users who do not fund their drug use through crime. ‘Coerced’ treatment options should not be seen as an alternative to accessible, good quality drug treatment available to all in need of it (Stevens, McSweeney, van Ooyen, and Uchtenhagen 2005). It is, of course, too early to say what impact the plethora of recent initiatives - such as the Drug Interventions Programme, Testing on Arrest, Restrictions on Bail, Required Assessments, and Priority and Other Prolific Offender schemes – have had on voluntarism and existing service provision (see Hunt and Stevens (2004) and Parker (2004) for a discussion of these issues).

### *Conclusions*

In outlining his vision of a desistance paradigm for offender management, McNeill (2006: 53) draws on the work of Duff (2003) and Maruna (2001) to posit how treatment can be considered as a ‘constructive punishment’ by offering the possibility for some form of ‘redemption’ and facilitating a ‘reconstruction of identity’. But as Lewis (2005) suggests, a closer examination of the role of rehabilitation as one of the stated purposes of the new sentencing framework can reveal a paradoxical penal policy at work. On the one hand, the government can ostensibly claim to be fulfilling its duty and obligation to undertake rehabilitative work with criminally involved drug users by introducing measures like the DTTO and DRR as an alternative to

imprisonment. At the same time, however, measures enshrined within both the Criminal Justice Act 2003 and the Drugs Act 2005 further reduce the role of voluntarism in sentencing and help-seeking processes, and further encroach upon notions of proportionality by increasing the intrusiveness of punishment in the name of rehabilitation. These new measures continue a trend whereby community sentences are imposing ever greater restrictions on low risk offenders, while the stringent enforcement of these penalties is, in itself, contributing to a burgeoning prison population (Soloman 2005).

Recent guidance outlines how the Criminal Justice Act 2003 has now removed any options previously open to the court for taking “no action” or imposing a financial penalty in response to a breach of a community order. Instead the courts are encouraged to amend community penalties by imposing “more onerous” requirements, or by revoking and re-sentencing (National Probation Directorate 2005: 17). Not only are these developments inconsistent with emerging evidence and the accepted notion of dependent drug use as a chronic relapsing condition, they represent a serious barrier for areas attempting to improve DRR retention and completion rates as they further erode probation officers’ discretion, and reduce the likelihood of offenders being retained on programmes for a sufficient period of time to realise any benefits. In light of the findings presented here, there is an urgent need to redress this imbalance to ensure that those responsible for delivering court-mandated treatment can develop strategies that enable them to effectively respond to instances of non-compliance - as well as good progress - and to do so in ways that increase rather than reduce the chances of retaining clients within treatment, and thus continue to reduce harms to both the individual and the community.

## References

Audit Commission (2005), *Governing partnerships: Bridging the accountability gap*. London: Audit Commission.

Berto, D. (2006), *QCT Europe: i trattamenti quasi obbligatori per tossicodipendenti* Padova: Cooperativa Libreria Editrice - Università di Padova.

Best, D., Hernando, R., Gossop, M., Sidwell, C. and Strang, J. (2003), 'Getting by with a little help from your friends: the impact of peer networks on criminality in a cohort of treatment-seeking drug users', *Addictive Behaviors*, 28/3: 597-603.

Burnett, R. and McNeill, F. (2005), 'The place of the officer-offender relationship in assisting offenders to desist from crime', *Probation Journal*, 52/3: 221-242.

Burr, A. (1987), 'Chasing the Dragon: Heroin misuse, dependency and crime in the context of south London culture', *British Journal of Criminology*, 27/4: 333-357.

Carpenter, J., Kenward, M., Evans, S. and White, I. (2004), 'Letter to the Editor', *Statistics in Medicine*, 23: 3241 – 3244.

Cuppleditch, L. and Evans, W. (2005), *Re-offending of adults: Results from the 2002 cohort*. Home Office Statistical Bulletin 25/05. London: Home Office.

Davies, J.B. (1997), *The Myth of Addiction (Second edition)*. Amsterdam: Harwood

Duff, A. (2003), 'Probation, Punishment and Restorative Justice: Should Altruism Be Engaged in Punishment?', *Howard Journal of Criminal Justice*, 42/1: 181-197.

Farrall, S. (2002), *Rethinking What Works with Offenders*. Cullompton: Willan.

Farrall, S. (2005), 'Officially recorded convictions for probationers: The relationship with self-report and supervisory observations', *Legal and Criminological Psychology*, 10/1: 121-131.

Godfrey, C., Eaton, G., McDougall, C. and Culyer, A. (2002), *The Economic and Social Costs of Class A Drug Use in England and Wales, 2000*. Home Office Research Study 249. London: Home Office.

Goldstein, P. (1985), 'The drugs-violence nexus: A tripartite framework', *Journal of Drug Issues*, 15: 493-506.

Gossop, M., Marsden, J. and Stewart, D. (2001), *National Treatment Outcome Research Study (NTORS) after five years: Changes in substance use, health and criminal behaviour during five years after intake*. London: National Addiction Centre.

Gossop, M. (2005a), *Treatment outcomes: What we know and what we need to know*. Treatment Effectiveness Series No.2. London: National Treatment Agency for Substance Misuse.

Gossop, M. (2005b), *Drug misuse treatment and reductions in crime: findings from the National Treatment Outcome Research Study (NTORS)*. Research briefing no. 8. London: National Treatment Agency for Substance Misuse.

Gossop, M., Trakada, K., Stewart, D. and Witton, J. (2006), *Levels of conviction following drug treatment – linking data from the National Treatment Outcome Research Study and the Offenders Index*. Home Office Research Findings 275. London: Home Office.

Greenglass, E.R., Schwarzer, R. and Taubert, S. (1999), *The Proactive Coping Inventory (PCI): A multidimensional research instrument*. (<http://userpage.fu-berlin.de/~health/greenpci.htm>)

Hammersley, R.H., Forsyth, A., Morrison, V. and Davies, J.B. (1989), 'The relationship between crime and opioid use', *British Journal of Addiction*, 84: 1029–43.

Hammersley, R. and Reid, M. (2002), 'Why the pervasive addiction myth is still believed', *Addiction Research & Theory*, 10/1: 7-30.

Hedderman, C. and Hough, M. (2000), 'Tightening Up Probation: A Step Too Far?', *Criminal Justice Matters*, 39: 5.

Hedderman, C. and Hough, M. (2004), 'Getting Tough or Being Effective: What Matters?', in G. Mair ed., *What Matters in Probation*, 146–169. Cullompton: Willan.

HM Inspectorate of Probation (2006), *An Independent Review of a Serious Further Offence case: Damien Hanson & Elliot White*. London: HMIP.

Holloway K., Bennett T. and Farrington D. (2005), *The effectiveness of criminal justice and treatment programmes in reducing drug-related crime: a systematic review*. Home Office Online Report 26/05. London: Home Office.

Home Office (2005), *Offender Management Caseload Statistics 2004*. RDS NOMS. Home Office Statistical Bulletin 17/05. London: Home Office.

Hunt, N. and Stevens, A. (2004), 'Whose harm? Harm and the shift from health to coercion in UK drug policy', *Social Policy & Society*, 3/4: 333–342.

Koeter, M. and Hartgers, C. (1997), *European Addiction Severity Index: Preliminary procedure for the computation of the EuropASI composite scores*. Amsterdam: Amsterdam Institute for Addiction Research.

Koeter, M. (2002), *Vroeghulp Aan Verslaafden. Het Effect Van De Vroeghulp Interventie Aanpak Op Criminele Recidive En Verslavingsgedrag*. Amsterdam: Amsterdam Institute of Addiction Research.

Kokkevi, A. and Hartgers, C. (1995), 'EuropASI: European adaptation of a multidimensional assessment instrument for drug and alcohol dependence', *European Addiction Research*, 1/4: 208-210.

- Lewis, S. (2005), 'Rehabilitation: Headline or Footnote in the New Penal Policy?', *Probation Journal*, 52/2: 119-136.
- Maguire, M. and Raynor, P. (2006), 'How the resettlement of prisoners promotes desistance from crime: Or does it?', *Criminology and Criminal Justice*, 6/1: 19-38.
- Mallinckrodt, C.H., Sanger, T.M., Dube, S., DeBrotta, D.J., Molenberghs, G., Carroll, R.J., Potter, W.Z. and Tollefson, G.D. (2003), 'Assessing and interpreting treatment effects in longitudinal clinical trials with missing data', *Biological Psychiatry*, 53/8: 754-760.
- Maruna, S. (2001), *Making Good: How Ex-Convicts Reform and Rebuild Their Lives*. Washington, DC: American Psychological Association.
- Maruna, S., Immarigeon, R. and LeBel, T.P. (2004), 'Ex-offender reintegration: theory and practice', in S. Maruna, and R. Immarigeon, eds., *After Crime and Punishment: Pathways to offender reintegration*, 3-26. Cullompton: Willan.
- Matrix Research and Consultancy (2004), *Partnerships: where next?* London: Matrix Research and Consultancy.
- McNeill, F. (2004), 'Desistance, Rehabilitation and Correctionalism: Developments and Prospects in Scotland', *Howard Journal of Criminal Justice*, 43/4: 420 – 436.
- McNeill, F. (2006), 'A desistance paradigm for offender management', *Criminology and Criminal Justice*, 6/1: 39-62.
- McSweeney, T. and Hough, M. (2005), 'Drugs and Alcohol', in N. Tilley, ed., *Handbook of Crime Prevention and Community Safety*, 563-594. Cullompton: Willan.
- McSweeney, T. and Hough, M. (2006), 'Supporting offenders with multiple needs: Lessons for the 'mixed economy' model of service provision', *Criminology and Criminal Justice*, 6/1: 107-125.
- Millar, T., Donmall, M. and Jones, A. (2004), *Treatment Effectiveness: Demonstration Analysis of Treatment Surveillance Data about Treatment Completion and Retention*. London: National Treatment Agency for Substance Misuse.
- National Offender Management Service (2005), *Strategy for the management and treatment of problematic drug users with the Correctional Services*. London: Home Office.
- National Probation Directorate (2005), *National Standards 2005. Probation Circular 15/2005*. London: Home Office.
- National Probation Directorate (2005), *Effective management of the Drug Rehabilitation Requirement (DRR) and Alcohol Treatment Requirement (ATR). Probation Circular 57/2005*. London: Home Office.

National Probation Service (2005), *Performance Report 16 and Weighted Scorecard 2004/05*. London: Home Office.

National Probation Service (2006), *National Probation Service Performance Report 19 and Weighted Scorecard Q3 2005/06*. London: Home Office.

National Treatment Agency for Substance Misuse (2005), *Statistics from the National Drug Treatment Monitoring System (NDTMS): 1 April 2003 – 31 March 2004*. London: National Treatment Agency for Substance Misuse.

Parker, H. (2004), 'The new drugs interventions industry: What outcomes can drugs/criminal justice treatment programmes realistically deliver?', *Probation Journal*, 51/4: 379–386.

Pawson, R. and Tilley, N. (1998), *Realistic Evaluation*. London: Sage

Prendergast, M.L., Podus, D., Chang, E. and Urada, D. (2002), 'The effectiveness of drug abuse treatment: a meta-analysis of comparison group studies', *Drug and Alcohol Dependence*, 67/1: 53-72.

Prochaska, J.O. and DiClemente, C.C. (1983), 'Stages and processes of self-change of smoking: toward an integrated model of change', *Journal of Consulting and Clinical Psychology*, 51: 390-395.

Raynor, P (2004), 'Rehabilitative and reintegrative approaches' in A. Bottoms, S. Rex, and G. Robinson, eds., *Alternatives to Prison: Options for an Insecure Society*, 195-223. Cullompton: Willan.

Rollnick, S., Heather, N., Gold, R. and Hall, W. (1992), 'Development of a short 'readiness to change' questionnaire for use in brief, opportunistic interventions among excessive drinkers', *British Journal of Addiction*, 87: 743–754.

Roxburgh, M. (2005), Personal communication.

Russell, J. (2004), *Substance Abuse and Crime: Some Lessons from America. Harkness Fellowship Report*. New York: Commonwealth Fund of New York.

Seddon, T. (2006), 'Drugs, crime and social exclusion: Social context and social theory in British drugs–crime research', *British Journal of Criminology*, 46/4: 680 - 703.

Simpson, D.D. and Knight, K. (1998), *TCU data collection forms for correctional residential treatment*. Fort Worth: Texas Christian University.

Soloman, E. (2005), 'Returning to Punishment: prison recalls', *Criminal Justice Matters*, 60: 24 – 25.

Soulet, M.H. and Oeuvray, K. (2006), *QCT Europe Final Report: Constructing, producing and analysing the qualitative evidence*. Fribourg: Université de Fribourg.

Stevens, A., Berto, D., Heckmann, W., Kersch, V., Oeuvray, K., Van Ooyen, M., Steffan, E. and Uchtenhagen A. (2005), 'Quasi-compulsory treatment of drug dependent offenders: an international literature review', *Substance Use & Misuse*, 40/3: 269-283.

Stevens, A., McSweeney, T., van Ooyen, M. and Uchtenhagen, A. (2005), 'Editorial: On coercion', *International Journal of Drug Policy*, 16/4: 207-209.

Stevens, A., Berto, D., Frick, U., Hunt, N., Kersch, V., McSweeney, T., Oeuvray, K., Schaaf, S., Trinkl, B., Uchtenhagen, A. and Werdenich, A. (2006), 'The relationship between legal status, perceived pressure and motivation in treatment for drug dependence: results from a European study of quasi-compulsory treatment', *European Addiction Research*, 12/4: 197-209.

Twisk, J.W.R. (2003), *Applied Longitudinal Data Analysis for Epidemiology: A practical guide*. Cambridge: Cambridge University Press.

Uchtenhagen, A., Schaaf, S., Bock, I., Frick, U., Grichting, E. and Bolliger, H. (2006), *Quasi-compulsory and compulsory treatment of drug-dependent offenders in Europe. Final report on quantitative evaluation*. Zurich: Research Institute for Public Health and Addiction.

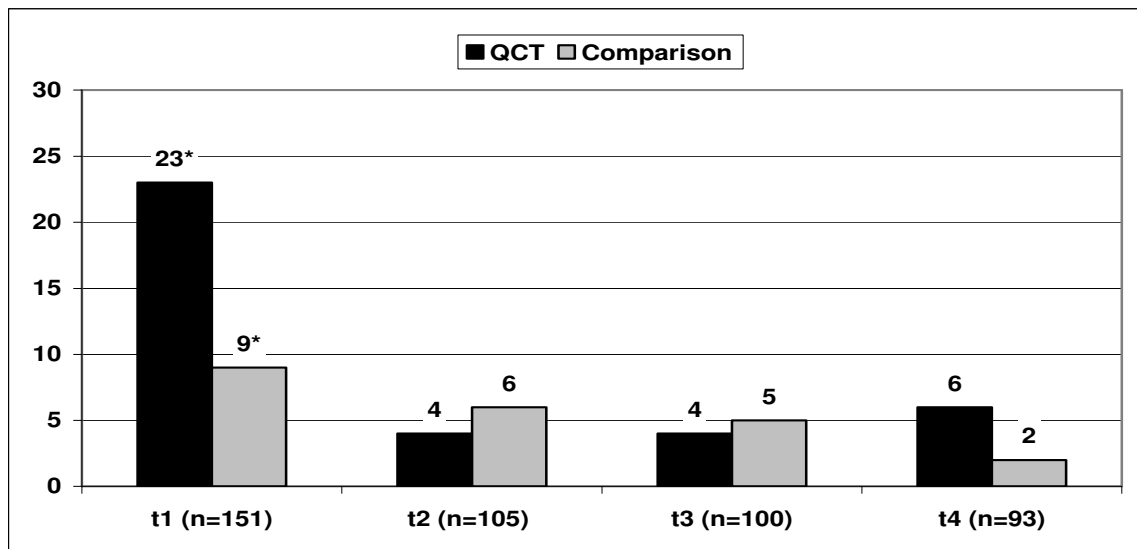
Warburton, H., Turnbull, P.J. and Hough, M. (2005), *Occasional and controlled heroin use: not a problem?* York: Joseph Rowntree Foundation.

Wild, T.C., Newton-Taylor, B. and Alletto, R. (1998), 'Perceived coercion among clients entering substance abuse treatment: Structural and psychological determinants', *Addictive Behavior*, 23: 81-95.



## Diagrams and tables

**Figure 1: Average (mean) reported number of days involved in crime during the last month by group**



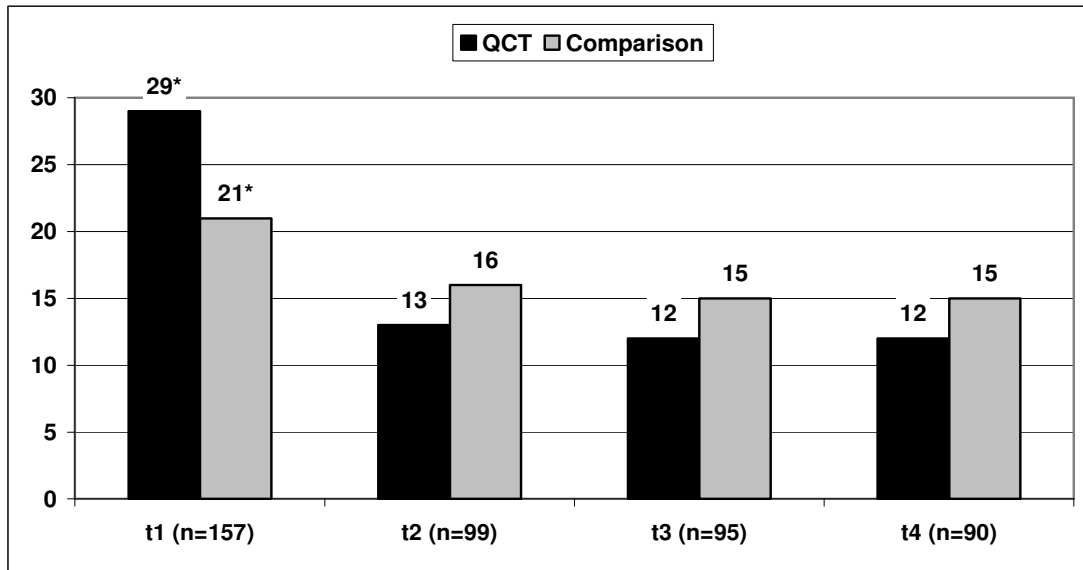
\*  $t = 6.73$ , d.f. = 149,  $p < 0.001$

**Table 1: Results of logistic regression analysis of the influences on reporting no offences six months after treatment entry.**

<b>Variable</b>	<b>Odds ratio</b>	<b>95% confidence interval</b>
Standardized composite drug use score at intake	1.94**	1.23 – 3.1
Entered treatment at site 2	0.26**	0.1 – 0.7
Age (increasing)	0.92*	0.85 – 0.98
In action stage of motivation at intake	0.31*	0.12 – 0.78

\* p<0.05, \*\*p<0.01

**Figure 2: Average (mean) reported number of days consuming illicit drugs (excluding cannabis and prescribed methadone) during the last month by group**



\*t = 4.70, d.f. = 155, p<0.001