


DRUG & ALCOHOL FINDINGS Research

analysis

This entry is our analysis of a study considered particularly relevant to improving outcomes from drug or alcohol interventions in the UK. The original study was not published by Findings; click [Title](#) to order a copy. Free reprints may be available from the authors – click [prepared e-mail](#). [Links](#) to other documents. [Hover over](#) for notes. [Click to highlight](#) passage referred to. [Unfold extra text](#)  The Summary conveys the findings and views expressed in the study. Below is a commentary from Drug and Alcohol Findings.

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► [Adaptive programming improves outcomes in drug court: an experimental trial.](#)

Marlowe D.B., Festinger D.S., Dugosh K.L. et al.

Criminal Justice and Behavior: 2012, 39(4), p. 514–532.

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Latest in an impressively coherent and persistent series of studies of how US courts specialising in supervision and treatment of drug-related offenders can do more to reduce drug use and crime. Triaging offenders to more or less intensive programmes and then adjusting based on actual progress made significant differences.

SUMMARY Drug courts specialise in closely supervising (through regular urine tests and court appearances) and ordering the treatment of drug-related offenders to improve compliance with treatment as an alternative to prosecution or imprisonment. Judges impose sanctions or offer praise or more tangible rewards and adjust treatment depending on progress. However, in the USA this intensive process is available to only a small minority of potentially suitable offenders. Extending the reach of drug courts may be more feasible if intensive supervision and treatment are reserved for offenders who need them in order to do well, and if these decisions can to a degree be routinised rather than made on an individual basis.

Background to the study

One step towards this is to match intensity to the risk that the offender will fail to meet the requirements of the court, imposing stricter supervision on offenders assessed as high risk before the start of their sentences. As [described by Findings](#), this has been trialled by the research group responsible for the featured study. They found that high risk (antisocial personality disorder or a history of treatment for drug abuse problems) offenders were more likely to test negative for drugs and to complete their court orders when they had been randomly assigned to fortnightly court progress hearings rather than hearings 'as needed' in response to infractions. A [further trial](#) implemented this matching procedure and again found better outcomes among high risk offenders matched to fortnightly hearings.

However, predicting in advance how offenders will react to different drug court requirements is an imperfect science. Another step forward is to adapt these to how offenders actually *do* respond, if possible based on pre-set criteria derived from research findings. For example, if a participant misses a set number of counselling sessions, an 'adaptive' regimen might stipulate a motivational enhancement intervention. Treatment staff retain authority to override or alter an adaptation, but typically have to explain their decisions. This study was the first major test of adaptive programming in a drug court. The featured report was based on outcomes during the first 18 weeks of the programme. Where appropriate, in this analysis its findings are supplemented [longer term findings](#) ([free source](#) at time of writing) based on urine drug tests and interviews six and 12 months after admission to the drug court, and re-arrest rates derived from criminal justice databases 18 months after admission.



Deciding who needs more supervision or treatment

The criteria for adapting the drug court regimen and the adaptations were developed by the drug court team and research staff with a view to being feasible as well as effective. As in earlier studies in the series, first offenders were categorised as high or low risk and assigned on this basis to fortnightly or as-needed hearings. Monthly assessments identified those who did not comply with the court's requirements, indicated by two or more unexcused missed counselling sessions or failures to provide a valid urine specimen. In these instances it was assumed that judicial supervision was inadequate and it was stepped up to fortnightly or, if already fortnightly, further infractions would result in conviction for the original offence.

At other times offenders might attend treatment and comply with tests, but still carry on using illegal drugs, indicated by two or more positive urine tests. In these instances it was assumed that **the treatment** was inadequate and its intensity was stepped up to include clinical case management entailing an additional two therapeutic group sessions per week and one individual session per month focused on motivational enhancement and relapse-prevention techniques.

A **pilot study** demonstrated the feasibility and promise of this approach, paving the way for the featured study.

About the study

Essentially the featured study tested whether in addition to triaging based on starting risk levels, adjusting treatment and supervision based on the offender's actual progress improved outcomes. Both the pilot and the featured study were conducted in a drug court in the city of Wilmington, the largest in the US state of Delaware. It accepted adult local residents charged with a **misdemeanour** without a history of a serious violent offending, and who drug court treatment staff assessed as meeting criteria for substance abuse or dependence. Defendants plead guilty but will be absolved if they **satisfactorily complete** the drug court programme and are not arrested for the next six months. Failing this they are convicted, have a criminal record, stand to lose their driving licences, and to be sentenced to a period on probation.

In 2009 and 2010 researchers approached 335 consecutive drug court defendants of whom 130 agreed to join the study (risking allocation to more intensive supervision and treatment than usual) and 125 actually started the programmes it tested. All were triaged based on their **risk levels** to fortnightly or as-needed hearings and their progress was monitored monthly by researchers and reported back to the drug court.

Using the criteria outlined **above**, for a randomly selected 62 offenders, these monthly assessments **determined** whether those failing to comply with attendance and testing requirements were subject to more frequent or stricter supervision, and whether those still using drugs were directed in to more intensive treatment. Remaining offenders were subject to the court's usual procedures.

Primarily at issue was whether adapting treatment/supervision to progress reduced drug use, as indicated by weekly urine tests over the first 18 weeks of the drug court sentence, the minimum needed to complete it. A **later report** (**free source** at time of writing) extended the findings to up to 18 months after the offenders were admitted to the drug court.

Main findings

The key finding was that during the first 18 weeks offenders subject to the predetermined adaptations were less likely to use illegal drugs. Of the urine tests they took, 68% indicated they were drug-free compared to 49% of comparison offenders. Assuming missed tests would have indicated drug use, the figures were 61% and 46%. Under either assumption, offenders whose supervision and treatment were adapted to their progress were over twice as likely as other offenders to submit a urine test negative for illegal drugs, a statistically significant difference, and one which was apparent over the entire 18 weeks.

In contrast, the proportions of offenders who satisfactorily completed the drug court programme within 18 weeks (31% in the adaptive regimen, 23% of the remainder) or within a year (68% and 67% respectively) did not significantly differ.



Just over a third of both sets of offenders at some time failed to meet criteria for complying with attendance or urine test requirements. These infractions were much more likely (64% v. 30%) to be responded to by the court when offenders were subject to the adaptive regimen and the court had been alerted to the infraction by the researchers. Also, roughly the same proportions (a fifth to a quarter) of offenders continued to use illegal drugs, though in this case the court was no more likely impose consequences on offenders in the adaptive programme.

There was a (not statistically significant) tendency for more offenders in the adaptive programme to see the court's procedures as fair, but otherwise no differences in perceptions of how effectively these procedures acted as deterrents, attitudes to the judge, and satisfaction with drug court services, all of which were generally positive.

Longer term findings remained in some cases in favour of the adaptive programme and these were found where the availability and type of data was most likely to allow differences to emerge. However, none of the differences were statistically significant, meaning chance variations could not be ruled out. Re-arrest records in relation to new offences in the 18 months after admission to the drug court [were available](#) (free source at time of writing) for all but seven of the 125 offenders. On each measure offenders subject to the predetermined adaptations were less likely to be arrested, but with small numbers and generally small differences, none of the findings were statistically significant. Of the offenders subject to the adaptations, 19% were arrested compared to 25% subject to the court's usual procedures. Corresponding figures for misdemeanour offences were 14% and 25% and for drug offences, 7% and 15%. For felonies, re-arrest rates were virtually the same – 7% and 5%. So many urine tests were unavailable that the results could not be relied on to generalise to the entire sample, but such data as there was resulted in no significant differences between the offender groups at either six or 12 months after admission to the drug court. Interviews were completed with a great majority of participants at six- and 12-month follow-ups but drug-related and other problems did not significantly differ between offenders allocated to the adaptive programme versus usual procedures. However, these problems were generally so slight that there was little scope for significant differences to emerge.

The authors' conclusions

Findings confirmed that adaptive programming can promote abstinence from illegal drugs among misdemeanour offenders sentenced by a drug court. This improvement in drug abstinence rates appears to have been attributable to more intensive supervision of offenders who failed to comply with attendance and testing requirements, rather than to more intensive and individualised treatment in response to continued drug use.

As intended, the criteria set for adapting the regimen, alerts to when these were breached, and the clear structure for how the court should respond, seem to have helped staff identify and rectify mismatches between offenders and the supervision schedule they had been assigned to on the basis of their anticipated risk of failure. In theory, drug court staff could have made these adjustments on their own initiatives, but were much less likely to do so without the guidance and assistance of the adaptive structure. Lacking this, they imposed consequences in respect of less than one in three of the times when offenders failed to show up for treatment or testing, a ratio unlikely to optimally promote compliance with supervision requirements. The adaptive regimen meant fewer offenders 'slipped through the cracks' to continue noncompliant behaviour with relative impunity. There was no indication (if anything, the reverse) that this greater strictness jaundiced offenders' views of the court or its procedures.

Strangely, while offenders whose programmes were adapted were more likely to test abstinent, they were no more likely to satisfactorily complete the drug court programme, despite the fact that a run of 14 'clean' urine tests was perhaps the primary requirement. It could be that the adaptive regimen failed to affect the other criteria offenders had to meet to satisfy the court and expunge their offence, or that the court took other factors in to account in making these decisions.



One methodological concern is that under 4 in 10 of the offenders asked to join the

study did so, reducing the degree to which the findings can be assumed to be representative of what would happen if such procedures were applied across the board. It seems likely that refusers were less motivated to comply with the court's requirements or felt (perhaps due to their addiction) that they would be unable to satisfy the court if more intensively supervised.

Rather than persisting impacts, these findings reflected periods when many offenders had recently ended or were still on drug court sentences. In the longer term 18 months after being admitted to the drug court, when most offenders would have been discharged from their programmes a year ago, effects on the two sets of offenders converged and became small and not statistically significant. This trend suggests further efforts may be required to extend the effects of adaptive programmes beyond the first four to six months of treatment in drug courts. There may also be scope to improve the criteria used to adapt supervision and treatment. For example, if offenders who have lapsed try to hide this by not turning up, the assumption that non-attendance for counselling or testing does not require more intensive treatment may be false. And while supervision and treatment could be intensified in response to poor progress, there was no mechanism for good progress to trigger the reverse.

FINDINGS COMMENTARY This is the latest in an impressively coherent and persistent attempt to evidence how US drug courts can do more to reduce drug use and crime, including ways to conserve resources by reserving intensive intervention for offenders who need it. These studies have shown that triaging on the basis of initial risk and then adjusting in the light of experience, based on simple and clear criteria and feasible treatment and supervision enhancements, are feasible for US drug courts and effective in promoting abstinence from illegal drugs. In turn this finding confirms that some kind of courts are more effective than others. Generally, drug court sentences are associated with lower crime and drug use rates than comparison sentencing options, but there are not enough rigorous and convincing studies to be sure this is due to drug court procedures as opposed to the type of offenders seen by drug courts or some other factor. Feeling more the weight than the quality of the evidence, generally reviewers have cautiously concluded that drug courts are more effective than conventional sentencing, but this largely US evidence is of doubtful relevance to the UK, where negative findings from Scotland may have contributed to a waning in enthusiasm at a national level for extending the drug court model to more offenders. Details below.

About the study

While the strategies tested by the featured study and its predecessors may seem obvious, deciding on the criteria for risk, the dividing line between poor versus good progress, and corresponding adjustments to supervision and treatment, is not straightforward. In the US context, and particularly in the context of a court trying less serious offences, triaging on the basis of antisocial tendencies and prior drug treatment and then adjusting on the basis of two missed appointments or urine tests had in some respects the desired impact. As the authors pondered, the puzzle is why this impact did not extend to what for the offender is probably the critical outcome – successfully completing the sentence.

For society and Britain in particular, crime-reduction is probably the critical outcome. A [prior study](#) found that the first step in the adaptive programming – triaging high-risk US misdemeanour offenders to fortnightly supervision – did not reduce crime to a statistically significant degree. According to their confidential accounts to researchers, among high-risk offenders in this study the reduction in the proportion who offended was greater (down by 23% v. 7%) when they had been left to the court's usual (roughly monthly) hearings. In the featured study there were signs that re-offending had been curbed more by the adaptive regimen, especially in relation to drug offences, where the proportion rearrested was under half that (7% versus 15%) after



usual procedures.

The authors of the featured study suggested that rather than intensified treatment, imposing tighter supervision and more certain sanctions was how the adaptive regimen helped offenders avoid illegal drug use. This raises the issue of whether for these types of offenders, treatment can be dispensed with altogether and supervision and sanctions relied on to enforce compliance. For what seems to have been a mainly methamphetamine-using caseload, this was essentially the proposition [tested in Hawaii](#). Where the featured study reserved more intensive treatment for offenders with positive urine tests, in Hawaii they took this a step further by reserving treatment as such. There intensive urine testing allied with swift and certain but not severe sanctions for non-compliance dramatically curbed drug use, prison time, and re-arrest rates among a high-risk group of drug using offenders. Treatment was available for offenders who wanted it or whose repeat positive drug tests suggested it was needed, but few did want or need it – perhaps 1 in 10.

British policy and experience

In the featured study's drug court [it seems](#) that most offenders confined their regular illegal drug use to cannabis. In Hawaii, a stimulant was the main problem drug and opiate use was rare. These caseloads are very different from the dependent heroin users who have committed serious and/or repeated offences who constitute the major part of the caseload in drug courts in [England](#) and [Scotland](#). It seems unlikely that many in the UK would be considered at low risk of reoffending, that fortnightly classes would be considered an adequate treatment for their addictions, or that many could sustain four months without registering some form of illegal drug use in at least two weekly urine tests. Generally they would be considered to warrant at least the intensity of treatment reserved for the minority of poor responders in the featured study. Though this means that in the British context, risk criteria and adaptive responses would have to be different, the principle of establishing these, and doing so on the basis of evidence rather than intuition, is likely to be applicable. If costly sentence failure and imprisonment are to be avoided, it [seems critical](#) that such adjustments are made before offenders get to the point where their breaches lead the court to revoke the drug court order and re-sentence for the original offence.

Drug courts have operated in England and Scotland for several years but are not widespread. In [six pilot English courts](#), involved offenders and professionals felt the courts were a useful addition to the range of initiatives aimed at reducing drug use and offending. They set concrete goals for offenders to meet, raised self-esteem, and imposed a degree of accountability for their actions on offenders. They were also seen as facilitating partnership working between agencies. However, Scottish courts too were *seen* as useful and effective, yet [there was no reliable evidence](#) that (despite costing substantially more per order and per successfully completed order) their sentences were any more effective than similar orders made by other courts, as assessed by the proportions of offenders reconvicted and the frequency of convictions.

The [2017 drug strategy](#) for England mentioned drug courts only once and briefly, saying that the "Ministry of Justice is considering existing initiatives already developed at a grass roots level in the UK". Its predecessor, the [2010 English drug strategy](#), had made no specific mention of drug courts at all. For more details on criminal justice policy, it had referred to a [Ministry of Justice consultation](#), which warned that drug courts "will only be continued if they genuinely make a difference and are cost effective". [Evidence gathered](#) for the consultation was equivocal about the applicability of international evidence to England and Wales and did not list drug courts among its



“promising approaches”, and neither were the courts mentioned in the government’s response to the consultation. The applicability of reasonably promising evidence from overseas (primarily the USA) was also questioned by the UK Drug Policy Commission in [its review](#) of programmes for problem drug-using offenders.

[Scotland’s drug strategy](#) published in 2008 had looked forward to the [assessment](#) of the country’s pilot drug courts cited above, which found no reliable crime-reduction impact but increased cost. A [review](#) of interventions for drug using offenders produced for the Scottish Government accepted these findings, and warned that the most rigorous international trials which randomly allocated offenders to drug courts or other judicial options found only weak crime-reduction impacts which fell short of statistical significance.

Given the negative crime reduction findings in Scotland, the lack of evidence in the rest of Britain, and doubts about the validity and applicability of mainly US international evidence, the national-level impetus for trying drug courts in Britain may have waned. Treatment allied with urine or other biological tests for drug use remain high on the UK agenda, but drug courts no longer appear to be seen as a prime means of ensuring and supervising such programmes. Nevertheless, such courts could be seen as one way to ensure offenders enter and comply with the treatment programmes (and specifically addiction treatment) the Ministry of Justice [had seen](#) as effective in reducing the costs of crime.

International reviews

Reservations in the Scottish review cited above over the evidence for drug courts from randomised trials were echoed in a [review](#) conducted by British experts for the Swedish Council for Crime Prevention. It was able to synthesise crime-reduction results from just two high quality trials. Together these registered an advantage for drug courts versus comparison judicial options, but not one which was statistically significant. According to this analysis, treatment in general had been shown to reduce drug-related crime, but the same could not yet be said of treatment delivered via a drug court.

Mandated by US law, in 2011 the US Government Accountability Office [investigated](#) how well US adult drug courts have reduced crime and substance use and their associated costs and benefits. They reported that compared to alternative dispositions, generally studies found drug courts were associated with lower rates of criminal recidivism and relapse to drug use, but few studies were free of possible bias arising from non-random selection of drug court versus comparison offenders. Due mainly to reduced future victimisation and justice system expenditures, benefits to society expressed in financial terms usually but not always outweighed costs. This balance was partly dependent on the expense of the alternative disposal; if community sentences supervised by a drug court replaced prison, the cost savings were likely to be positive and substantial.

In hedging its cost-benefit findings, the US Government Accountability Office touched on a [fundamental criticism](#) of US drug courts – that [most exclude](#) violent or drug-dealing offenders or those with extensive criminal histories and serious mental health issues. The upshot is often a caseload of low-level drug offenders who are otherwise generally law-abiding, many of whom might have been more cheaply and appropriately diverted out of the criminal justice system altogether. The report also



echoed a general finding in other research syntheses – that the more sound the study, the less likely it is to find any substantial recidivism reductions due to drug courts.

How far most studies fall short of the gold standard randomised controlled trial was commented on by (at the time of writing) the [latest synthesis](#) of drug court studies published in 2012. Among this “methodologically weak” body of work, just three of 92 studies of [courts](#) trying adults had randomly allocated offenders to these versus alternative judicial procedures. Across these three, recidivism was lower among drug court offenders, but the amalgamated finding was not statistically significant, perhaps because of one atypical study in which the comparator featured even more intensive drug testing than the drug court required. The next most sound studies typically attempted instead to match drug court and comparison offenders on key variables, or to adjust the findings for their relative risks of offending. Across these 20 studies, recidivism was modestly and significantly lower among drug court offenders, but such research designs have limited power to iron out the most important differences between offenders who are or are not referred to (or choose to be processed by) drug courts. Presumably crucial variables – like how committed the offenders is to succeed, their social and family support, or professional assessments of how well suited they are to a drug court regimen – are rarely available to researchers. Echoing the featured study, this synthesis found that drug use was lowest in courts which supervised offenders frequently and which – like the court in the study – could hold out the prospect that success would expunge the original offence. These too were among the effective ingredients identified in a [major study](#) funded by the US Department of Justice of 23 drug courts.

For Effectiveness Bank drug court analyses run [this search](#). In particular see these [background notes](#) with a detailed consideration of one of the most methodologically rigorous studies to date, conducted in Baltimore with a caseload unusually relevant to the UK because it consisted mainly of heroin addicts with extensive criminal records. Though methodological concerns remained, it found that over the three years after offenders had been allocated to the court or to normal proceedings, the average numbers of new arrests and charges were significantly fewer among drug court offenders and drug use was lower.

Thanks for their comments on this entry in draft to Douglas Marlowe, then of the University of Pennsylvania in the USA. Commentators bear no responsibility for the text including the interpretations and any remaining errors.

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STUDY 2011 [Targeting dispositions for drug-involved offenders: a field trial of the Risk and Needs Triage \(RANT\)](#)

STUDY 2014 [For whom does prison-based drug treatment work? Results from a randomized experiment](#)

STUDY 2009 [Review of the Glasgow & Fife drug courts](#)



STUDY 2013 [Criminal justice responses to drug related crime in Scotland](#)

STUDY 2012 [Alcohol screening and brief intervention in probation](#)

STUDY 2009 [Managing drug involved probationers with swift and certain sanctions: evaluating Hawaii's HOPE](#)

STUDY 2009 [The Drug Treatment Outcomes Research Study \(DTORS\): final outcomes report](#)

STUDY 2008 [Dedicated drug court pilots: a process report](#)

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