

Drug treatment courts in Canada: an evidence-based review

Drug treatment courts (DTCs), which are judicially mandated treatment alternatives to the incarceration of illicit drug offenders, were introduced in Canada in late 1998. Recent announcements from the federal government suggest that the drug treatment court model will continue to operate and expand in a number of Canadian jurisdictions. Two major evaluations of these programs — in Vancouver and Toronto — have been conducted. In this article, D. Werb et al. analyze the results of these evaluations. Their analysis reveals that, despite the evaluations, little is known regarding the success of DTCs in contributing to the long-term reduction of drug use and recidivism among their participants; and that the cost-effectiveness of these programs requires further study. The authors conclude that further funding for DTCs in Canada should be dependent on the implementation of randomized controlled trials that measure the success of these programs in reducing drug use and recidivism in the long term; that measure the impact of DTCs on societal end-points such as rates of crime and incarceration of injection drug users; and that include components to measure the cost-effectiveness of DTCs compared with other interventions aimed at reducing the negative effects of problematic drug use and drug-related crime.

Introduction

Drug-related crime and the adverse public health consequences of unsafe drug use continue to plague numerous urban centres in Canada and in many other countries.^{1,2} At the street level, drug markets and drug use continue to be strongly related to public disorder, as well as to acquisitive and property crime.^{3,4} Certain forms of drug use, such as injection drug use, have also been shown to seriously compromise the health of drug user populations.⁵

Though a growing number of municipal governments, such as the City of Vancouver, have structured their responses to these issues using a so-called “balanced approach” that includes the “four pillars” of law enforcement, prevention, harm reduction, and addiction treatment, recent evidence suggests that an overwhelming emphasis on enforcement persists,⁶ and that this emphasis often undermines efforts to reduce health-

related harms among people who use drugs.⁷

Despite this apparent imbalance, in March 2007, Canada’s governing Conservative Party announced the introduction of a National Anti-Drug Strategy that emphasizes a drug policy model focused exclusively on enforcement, prevention and treatment,⁸ and that also includes funding for extra-judicial treatment and diversion programs for drug offenders. One such program embraced by the current federal government is DTCs.

DTCs are judicially-mandated treatment programs that offer an alternative to jail time.⁹ Generally, participants are selected from a pool of non-violent offenders charged with drug-related crimes (most often possession, possession for the purposes of trafficking, or trafficking; generally, individuals charged with commercial trafficking or violent offences are excluded), and in most DTC models the individual must plead guilty before entering the program. Once

enrolled, participants are regularly tested for use of illegal drugs and placed in a treatment stream adjusted to their progress.

Key to the DTC model is the participant’s regular attendance at a court in which a non-adversarial team, generally made up of a judge, prosecutor, defence lawyer and treatment counsellor, collaborates in order to address the participant’s progress and work towards treatment goals.¹⁰ All DTCs operate on the same principle of coercive, abstinence-based addiction treatment, with only limited tolerance for relapse.^{11, 12}

Since the establishment of the first DTC in Florida in 1989, over 1600 DTCs have been instituted in the U.S., and hundreds more are in development.¹³ In many U.S. jurisdictions, DTCs represent a key point of contact between people who use drugs and addiction treatment services.¹⁴ DTC programs were also implemented in Australia and the United Kingdom.¹⁵ Numerous evaluations

of mixed quality and rigour have provided data regarding the effectiveness of DTCs in treating drug addiction and in reducing rates of recidivism.^{16, 17, 18, 19, 20, 21} However, while hundreds of drug treatment courts in the U.S. regularly perform self-evaluations,²² there have been only a small number of peer-reviewed DTC evaluations, and some of these have been identified as containing substantial methodological shortcomings.²³

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Only three randomized control trial (RCT) evaluations of DTCs have been conducted. One RCT evaluation conducted in Baltimore found no statistically significant differences between participants in the experimental (DTC) and control (judicial) groups in rates of crime, alcoholism, employment, mortality and strength of family and social relationships three years after acceptance into the Baltimore DTC.²⁴ Another RCT evaluation in Maricopa County, Arizona found that after 36 months, the experimental (DTC) group had a recidivism rate of 33 percent compared to 44 percent for a control (judicial) group, and that this differ-

ence reached statistical significance.²⁵ Finally, a RCT conducted in New South Wales found no statistical significance between the experimental (DTC) and control (judicial) groups one year after program completion.²⁶

The Canadian experience with DTCs has been limited, with the opening of two DTCs in Toronto and Vancouver in 1998 and 2001 respectively.^{27, 28} However, the recent establishment of DTCs in Edmonton and Regina,^{29, 30} federal funding of \$13.3 million allocated to the development of additional DTCs in Winnipeg and Ottawa,³¹ and the current government's emphasis on extra-judicial diversion programs suggest that these programs are becoming more attractive to Canadian policy-makers.

Three central hypotheses drive the expansion and popularity of DTCs, namely that DTCs lower rates of recidivism and drug use,³² and that DTCs are cost-effective.³³ The first two have been proposed as evidence that DTCs effectively treat drug addiction.³⁴ The argument that DTCs are cost-effective is based on the DTC's alleged ability to relieve pressure on correctional services by processing individuals with drug dependence who would otherwise serve jail time.³⁵ However, it remains unclear whether DTCs produce such benefits, and there has been limited discussion regarding the impacts of coercion and the requirement of abstinence on program effectiveness.

Evaluations of DTCs in Canada

Two major DTC evaluations have been undertaken in Canada, in Toronto and Vancouver. It should be noted that while an evaluation of the Edmonton DTC has also been conducted, the small sample size (seven) and an eval-

uation period of five months limits greatly the utility of this study.³⁶

The Vancouver DTC evaluation

The Vancouver DTC evaluation employed a non-randomized design. The authors identified the unfairness of denying addiction treatment to individuals who may benefit from it and the desire of pilot study staff to recruit the most eligible participants into the program as key obstacles to randomization.³⁷ The evaluation team used a selected group of individuals, matched to the DTC participant group on key pre-specified variables, as controls. This control group (327 people) was made up of volunteer incarcerated offenders and a virtual cohort of individuals who were traced through probation files and electronic records of drug offenders with reported addiction problems.

While the evaluators matched 166 individuals from both the DTC group and the comparison group on five key variables — ethnicity, gender, previous violent offences, age and previous number of sentences — this sub-cohort of matched individuals differed significantly from the larger DTC group on age, ethnicity and gender. The results derived from a comparison of the matched participants may not, therefore, have necessarily reflected the outcomes of the DTC group as a whole.

Participants in the comparison group were also on average more likely to be older, male and Caucasian than those in the DTC group. Further, critical differences existed in the criminal histories of the two groups' participants. Compared with participants in the DTC group, participants in the comparison group had spent double the average days in remand (153 vs. 75), more months in custody

(35.8 vs. 20.16) and were less likely to have committed drug offences (29.1 percent vs. 67.7 percent). These differences at baseline between the DTC group and the comparison group likely affected the evaluation findings, and could potentially account for differences in rates of post-program drug use and criminal recidivism between the two groups.

The Vancouver DTC was evaluated over a span of approximately 3.5 years, from December 2001 to March 2005. During this time, 322 participants were admitted, of which 34 (10.6 percent) graduated and eight (2.5 percent) otherwise completed the program (meaning that they reduced their drug use substantially and met certain levels of economic and social stability). As of March 2005, 185 participants (57.5 percent) had either withdrawn voluntarily or been expelled, 25 (7.8 percent) were currently suspended, and 64 (19.9 percent) were still participating in the program. Six participants (1.5 percent) died during their participation in the DTC.³⁸

Of note, program participation had no statistically significant bearing on the rate of charges that participants accrued during the time they spent in the program. Additionally, no statistical difference was observed between DTC participants and the comparison group with regard to accumulated post-program criminal charges measured six months after participation in the DTC. The Vancouver DTC evaluators did not collect data related to post-program drug use. Without this data there is no way to gauge the program's success in this regard.

The Toronto DTC evaluation

The Toronto DTC evaluation consisted of what the evaluators referred

to as a “quasi-randomized trial,” in which the DTC participant group was compared with two control groups. The primary comparison was made with 64 participants who were eligible for drug treatment court but who opted not to participate in the program and who were subsequently processed by the traditional judicial system. This group was referred to as the judicial comparison group. All DTC participants were followed for approximately 18 months after admission to the program, and each DTC participant was assessed on a number of variables that included socio-demographic factors and indicators of drug use, criminal recidivism and health.

The Toronto drug treatment court evaluation did not yield reliable information concerning post-program drug use.

Overall, when compared with DTC group participants, individuals in the judicial comparison group had a much higher rate of criminal activity constituting a major income source prior to enrolment (23.3 percent vs. 6.9 percent), were younger than the DTC group (30.8 vs. 34.2), were more likely to be chronically unemployed (62.8 percent vs. 34.2 percent), more likely to be female (48.4 percent vs. 24.1 percent), and had used cocaine more often in the

90 days prior to the DTC clinical assessment (an average of 54.5 days vs. 34.3 days) than their counterparts in the DTC group.

In general, the evaluators characterized the judicial comparison group as generally more heavily marked by substance abuse and criminal activity.³⁹ Some of the variables listed above on which the groups' participants differed have been shown to be associated with heightened risk of drug dependence and related harms, and injection drug use in particular, among at-risk populations.^{40, 41, 42, 43, 44} Consequently, the DTC group included offenders who possessed fewer indicators of drug dependence than the judicial comparison group, and the DTC group therefore presumably contained individuals who had a better chance of succeeding in treatment as compared to those individuals in the judicial comparison group.

Additionally, because the judicial comparison group was made up of individuals who were eligible for, but opted not to enter, the DTC group, the evaluators may have introduced a selection bias into the evaluation as DTC group participants may have been potentially more motivated to seek and comply with treatment than those in the judicial comparison group.

In the period from 1 April 1999 to 1 October 1 2003, out of a total of 365 participants, 57 (15.6 percent) “graduated” from the Toronto DTC, while 308 (84.4 percent) were either expelled or withdrew from the program.⁴⁵ With respect to the assumption that DTCs reduce recidivism, follow-up analysis shows that participants in the Toronto DTC group had a reduced overall rate of charges and convictions after participating in the DTC program compared to their

rate of charges and convictions prior to their enrolment in the program. However, a similar and significant drop in criminal charges and convictions was also present among the judicial comparison group.⁴⁶

The Toronto DTC evaluation did not yield reliable information concerning post-program drug use and socio-economic status among either the DTC participants or the comparison groups. Therefore, little is known regarding the effect of the Toronto DTC on its participants' post-program lives, and particularly on its participants' drug use patterns, in the long-term.

Costs and cost-effectiveness of the Vancouver and Toronto DTCs

The Vancouver DTC evaluation clearly outlined its costs over 3.5 years and compared the cost-effectiveness of enrolling participants in the program against the matched comparison group. In comparing the direct cost of DTC participants who either withdrew or were discharged from the program with their matched counterparts in the comparison group, the evaluation found direct cost savings in favour of the comparison group of approximately \$6,000 for individuals who withdrew and \$10,000 for individuals who were discharged from the DTC. However, in the smaller matched group of DTC graduates and comparison group members, a cost saving of approximately \$4,000 was found in favour of the DTC graduates as compared to individuals in the comparison group.

Overall, the cost per person was found to be \$21,265 for Vancouver DTC participants and \$13,117 for the matched comparison group, which

amounts to a disparity of approximately \$8,000 between individuals in the DTC and those in the comparison group. As the evaluators of the Vancouver DTC stated, "Overall, in order to achieve cost efficiency with a DTC strategy, a larger number of participants must exhibit positive outcomes (i.e., fewer convictions). According to the current data, this might be feasible if the program was in a position to graduate a higher proportion of participants."⁴⁷

This suggests that the ineffectiveness of the Vancouver DTC's treatment delivery model may be the primary reason for the low cost-effectiveness of the program. However, because of the lack of data on post-program drug use, Devlin and colleagues were unable to include the costs associated with continued drug use in their cost-benefit analysis, which limits the scope of their cost evaluation.

Finally, the total costs of the Vancouver DTC during the period of December 2001 to March 2005 were \$4,058,819.⁴⁸ With 42 participants who either graduated or completed the program, the cost per graduate or completer was \$96,639.

The federal Department of Justice allocated \$1.6 million to fund the Toronto DTC over a trial period of four years. However, this figure does not include the costs of treatment services and infrastructure provided by the Centre for Addiction and Mental Health (CAMH), which acted as the Toronto DTC's treatment partner. The Toronto evaluators did carry out a cost analysis of the DTC by calculating all costs associated with the court component of the program and adding these costs to the estimated costs of treatment, community coordination and sentencing. Using this

method, the average cost per Toronto DTC client was found to be \$42,564. On average, graduates cost \$53,555, participants who dropped out of the program within the first three months cost \$29,748, and participants who opted to stay in the program longer than three months but who subsequently withdrew or were expelled cost \$72,322.⁴⁹

The focus of the drug treatment courts on abstinence causes those individuals characterized by severe drug dependence to often be at highest risk of "failing" the program.

However, the evaluators were unable to provide a figure for the total costs of the program, and excluded many costs related to the DTC such as treatment or judicial services provided in kind, the cost of non-CAMH treatment providers, costs related to court-ordered treatment included in sentencing (which refers to treatment carried out as part of a sentence that is separate from the DTC program), and indirect costs.⁵⁰

Canadian media and at least one researcher have made the claim that the Toronto DTC is cost-effective, with treatment per DTC participant estimated at \$3,000–\$5,000 per year⁵¹ as opposed to the \$48,000–\$52,000 annual cost of incarcerating an offender. However, Canadian statis-

tics show that for 83 percent of those who are incarcerated for drug-related crimes, the median incarceration period for offenders charged with possession is 15 days, while for trafficking charges the median incarceration period is three months.^{52, 53} Therefore, claims that DTCs represent cost-savings when comparing annual rates of incarceration with annual rates of treatment misrepresent the fact that the incarceration periods for offenders charged with drug-related crimes are often much shorter in length than DTC programs, and consequently have lower associated overall costs.

The role of coercion and abstinence in DTC models

DTCs operate on a principle of legal coercion, in which the power of the courts and the threat of incarceration operate as motivating factors in promoting the DTC participant's treatment compliance.⁵⁴ However, evaluations examining the use of coercion in drug treatment delivery have so far produced inconclusive findings.^{55, 56, 57, 58, 59}

While the Vancouver and Toronto DTCs are treatment-oriented programs, both require their participants to abstain completely from drug use in order to graduate. This focus on abstinence neglects the impact of the role of relapse on the natural history of drug dependence.⁶⁰ An established body of literature demonstrates that addiction is a chronic and relapsing condition, shaped by a multitude of behavioural and social-contextual characteristics that may not be amenable to abstinence-based programs in all cases.^{61, 62}

Finally, the DTC focus on abstinence causes those individuals characterized by severe drug dependence

to often be at highest risk of "failing" a DTC program.⁶³ As can be seen from past DTC evaluations, the most dependent users often fail the program and are sent back to the judicial system, while less dependent individuals (who have a better chance of managing their drug use and, consequently, of graduating) are rewarded; for example, in a study that sought to identify predictors of retention among DTC participants, those individuals who reported alcohol or marijuana as their primary substance of choice and who had fewer prior arrests were the most likely to successfully graduate from the DTC program.⁶⁴

Conclusion

The evaluations of Canadian DTCs have so far failed to demonstrate that these programs are effective in reducing rates of recidivism and drug use among program participants. Both the Vancouver and the Toronto DTC evaluations, like many other DTC evaluations, suffer from methodological problems (which are particularly severe in the case of the Vancouver evaluation) that make it difficult to properly assess the efficacy of these programs.

Furthermore, the high failure rates that mark DTCs have the potential to exacerbate the interaction that drug offenders have with the judicial system, as those who fail DTC programs are often returned to the traditional judicial system. This may result in an increase in both the overall costs to the judicial and correctional system and the prolongation of the individual's placement within these systems, despite the failure of these systems to effectively address drug dependence.

Given the many unknowns surrounding DTCs, particularly in

the Canadian context, the federal government's decision to expand the Canadian DTC system therefore appears premature. While evaluations of the Toronto and the Vancouver DTCs have been carried out, neither evaluation offers a comprehensive analysis of the effect of these interventions on their participants.

Funding for DTCs in Canada, therefore, should be made dependent on the implementation of evaluative studies that utilize randomized controlled trial methodology and that include a number of measures of success. Specifically, DTC evaluative studies in Canada should include measures of long-term efficacy (i.e., long-term measures of drug use and recidivism) and safety; should measure the impact of DTCs on societal end-points such as rates of crime and incarceration of injection drug users; and should include components to measure the cost-effectiveness of DTCs compared with other interventions aimed at reducing the negative effects of problematic drug use and drug-related crime. Without this additional data, it is impossible to justify the expansion of these programs in Canada.

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