

Editorial

Latest findings highlight the continuing uncertainty over the utility of compulsory psychiatric treatment in the community

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Community treatment orders (CTOs) have been introduced in many jurisdictions with evidence of increasing use over time as well as a disproportionate use in marginalised populations. Rates of CTOs also vary widely, both internationally and within the same country, for reasons that are poorly understood. This is despite evidence for effectiveness being mixed and, as a result, there have been calls for a reappraisal of this type of legislation. In the UK, a parliamentary committee on reforming the existing Mental Health Act recommended abolishing CTOs other than for people in the criminal justice system. Two recent Australian papers based on large state-wide administrative data-sets give conflicting results and came to markedly different conclusions regarding the desirability of reducing CTO rates. The debate about the effectiveness of CTOs therefore remains unresolved. This is of concern beyond Australia, as other jurisdictions such as England, Scotland and Canada have similar clinician-initiated orders.

Keywords

Community treatment orders; out-patient commitment; compulsory community treatment; administrative health data; mental health law.

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Any potential benefits of community treatment orders (CTOs) in ensuring necessary care, recovery and safety have to be balanced against concerns regarding capacity, human rights and autonomy, as well as addressing stigma and the provision of the least restrictive alternative. The use of CTOs is widespread and increasing. For instance, there were about 5000 people on CTOs in England in 2021–22, about ten times the initial estimated number at the time of their introduction.¹ Depending on jurisdiction, rates per 100 000 of Australians on CTOs increased by up to 50% from 2005 to 2012, although this had generally plateaued in more recent data from 2016–17.² Of particular concern has been the disproportionate use in Culturally and Linguistically Diverse (CALD) populations. For instance, people from African or African-Caribbean backgrounds are 11 times more likely to be placed on a CTO in England,¹ while in Australian research, those who required an interpreter were nearly three times more likely to be on a CTO.³ Rates of CTO use also vary widely, both internationally and within the same country, for reasons that are poorly understood. For instance, there are large differences in CTO use across Australian states, even given similarities in legislation and health services. For instance, annual CTO rates ranged from 66 per 100 000 population in Queensland to 112.5 per 100 000 in South Australia in the most recent comparison (2016–17).²

These findings have led to a reappraisal of this legislation. In the UK, the parliamentary committee on reforming the existing Mental Health Act recommended abolishing CTOs other than for people in the criminal justice system.¹ Even if CTOs were to be retained, the committee suggested a review of their continued use after several years.¹ Victoria is also reviewing the role of CTOs as part of a general assessment of compulsory treatment and its alignment with other decision-making laws.

Aside from concerns over increasing and disproportionate use, evidence for effectiveness is mixed and dependent on study design. Randomised controlled evidence is limited to three trials because of the difficulties of conducting randomised controlled trials (RCTs) in

this area.⁴ Two studies were from the USA where the comparison was with entirely voluntary treatment. The third study from the UK compared CTOs with extended leave of up to several weeks, during which time a person can be returned to hospital in the case of non-cooperation or significant relapse. In all three studies, the primary outcomes were admissions, bed-days or out-patient contacts up to 12 months follow-up. Depending on the study, secondary outcomes included concordance with medication, social functioning, criminal justice contacts, homelessness or psychiatric symptoms. There were no significant differences between the intervention and control groups in meta-analyses of either the primary or secondary outcomes, except that in one study, people on CTOs reported less victimisation.

In a *post hoc* analysis, one study did find that people who had been on a CTO for more than 180 days had better outcomes than the control group. However, this was not random but could reflect a situation where the CTO was selectively extended in situations when it appeared to be of benefit. All three RCTs had limitations. For instance, participants with a history of violence were excluded in two RCTs, while in the third, comparisons were made with an extended leave group. However, results were unaltered when meta-analyses were restricted to comparisons with entirely voluntary care.⁵

The challenges of conducting RCTs in this area have therefore led to a reliance on before-and-after or controlled designs often using administrative data. Results have varied depending on the study design, outcomes and success in controlling for potential confounding variables.⁴ In general, the more robust the design, the less likely there were to be any reductions in readmissions or bed-days over the 12 to 24 months following CTO placement.^{3,4,6} For example, meta-analyses of before-and-after studies showed significant effects on readmission, bed-days and treatment adherence that were no longer apparent in similar analyses of studies with controls.^{4,6} There was a signal of better outcomes in terms of reduced in-patient health service use for CTOs of greater than 2 years'

duration or from the fifth CTO onwards.³ However, compulsory community treatment of that duration might be seen as more coercive than shorter involuntary admissions. In addition, as in the RCT findings, better outcomes with longer placement may reflect a selection rather than a treatment effect, in that CTOs were only extended when they appeared beneficial. There is even less information on other outcomes, although randomised or adjusted findings suggest no benefit to quality of life, psychiatric symptoms or homelessness.^{3,5}

Complicating the picture are disagreements on the purpose of CTOs. Some have argued that preventing admission or improving psychosocial outcomes are not objectives mentioned in any CTO legislation, but rather that the purpose of CTOs is to ensure that people who pose a threat to their own health and safety, or that of others, receive treatment in the community.⁷ However, this confuses the criteria for involuntary treatment, including harm to self or others, with its purpose. As an example, the following is a direct quotation from the Victoria Department of Health website:⁸

'Compulsory assessment and treatment are to be provided with the aim of promoting the person's recovery and transitioning them to less restrictive treatment, care and support'.

Two recent Australian studies reported conflicting results and came to markedly different conclusions regarding the desirability of reducing CTO rates.^{9,10} The first paper reported on the latest results from 2010–17 as part of consecutive studies over three decades using the Victorian Psychiatric Case Register (VPCR) of everyone in contact with mental health services.⁹ Previous papers using the same methods covered 1990–2000 and 2000–10.^{11,12} These papers from Victoria have been influential in both Australia and the USA. For instance, two are cited in the section on involuntary treatment in the American Psychiatric Association's clinical guidelines for the management of schizophrenia.¹³ This is despite the use of a unique range of outcome measures that are not used by other authors, making comparisons with other work difficult. Rather than comparing people on CTOs and matched controls on voluntary treatment over a set period from CTO placement such as 1 or 2 years, the two matched groups were compared in terms of the mean number of bed-days per admission over 10 years without specific reference to (a) the timing of the CTO, and (b) the number of psychiatric admissions that occurred prior to CTO placement. The paper argued that legislative changes to reduce the use of compulsory treatment in the community had resulted in unintended consequences including increased admissions and lengths of stay. For instance, in the most recent data, 29.3% of the study population experienced their first hospitalisation, which was higher than the 23.4% of the previous decade.⁹ However, the number of these individuals who were then placed on a CTO after their first hospitalisation fell from 15.6% in 2000–09 to 12.4% over the same period. Both results were statistically significant. According to the paper's authors, lengths of stay in CTO cases had also increased as a result of less CTO use. While CTO cases had 3.75 fewer days per admission than controls in the latest results, the comparable reduction in bed-days because of CTOs had been 8.32 days in the 1990s.^{9,11} The inference was that reduced use of CTOs compromised their potential benefits in terms of reducing admission rates and lengths of stay, and that reversing this decline would be a less restrictive alternative.

However, a closer look at the data suggests other possible explanations. First, it is difficult to prove causality when events have occurred over a decade. This particularly applies to the above situation where the initial CTO placement of interest appears to have occurred after the initial admission. Second, while the number of

CTOs had declined as a proportion of initial admissions, the number of CTO cases as a percentage of all people in the VPCR was unchanged at just under 4% over the two decades ($z = 0.08$; $P = 0.936$). CTO use in people receiving psychiatric services had therefore not declined over the two decades, as was claimed. Last, the relative lack of difference between CTO cases and controls in the most recent data on bed-days per admission could be explained by regression to the mean, given that the overall length of stay fell from 33.8 to 25.2 days in the intervening decade.

In a further paper, Segal and colleagues reported that there were no differences in mortality rates between people who had been in hospital as voluntary patients and those who had been discharged to a CTO.¹⁴ This was in contrast to their study from the previous decade where there was a reduction in mortality compared with people on voluntary treatment.¹⁵ As with health service outcomes, this worse outcome was attributed to reductions in CTO placement. However, there are two problems with this conclusion. First, like was not compared with like, as the previous paper considered all diagnoses,¹⁵ while the later one was restricted to schizophrenia.¹⁴ Although adjusted results were not presented by diagnosis in the first paper, reductions in the crude death rate in people on CTOs compared with those on voluntary treatment were restricted to those with a diagnosis of dementia, not to people with any of the other psychiatric disorders (including schizophrenia). Second, in comparing the mortality of people with schizophrenia with that of the general population, Segal and colleagues did not consider overall increases in life expectancy in the general population, whereby the gap in mortality rates between people with severe mental illness and everyone else has increased, irrespective of their legal status.¹⁶

By contrast, a systematic review and meta-regression of Australian and New Zealand studies that reported on more commonly used outcome measures came to quite different conclusions regarding the relationship between CTO use and subsequent outcomes.¹⁰ The review analysed data on outcomes from nine different studies. Of these, six studies provided information about the outcomes after 12 months, one study looked at the outcomes after 24 months and the remaining two studies did not specify the follow-up period.¹⁰

In all nine studies, researchers took into account the impact of other factors that could influence the results.¹⁰ They did this by using either matching techniques or multivariate analyses. These factors included people's sociodemographic backgrounds, clinical conditions, use of health services and any previous forensic involvement. On meta-regression, there was an inverse relationship between state-wide rates of CTO placement and subsequent in-patient use, with the result that jurisdictions with low rates of CTO use were more likely to show reductions in readmission rates or bed-days than those with higher rates.¹⁰ This was possibly because lower levels of use meant that CTOs were targeted at people who were more likely to benefit, such as those with non-affective psychoses rather than other diagnoses. These findings reflect those from a recent New Zealand-wide epidemiological study where reductions in health service use following CTOs were limited to people with schizophrenia.¹⁷

Although both sets of studies reached different conclusions, they shared similar limitations. Both relied on administrative data and only demonstrated significant associations not causality. They also did not consider factors that may influence CTO placement or outcomes other than differences in jurisdiction-wide rates of use. These might include environmental factors, differences in demographics, the availability of in-patient or community-based resources, peer involvement or service culture. The picture is thus more complicated than a simple association between changes in

CTO use and subsequent outcomes. On the other hand, while the paper by Segal⁹ and colleagues was limited to Victorian residents, the meta-regression results were based on six studies from five jurisdictions, including Victoria, that were identified through a systematic literature search.

The debate about the effectiveness of CTOs therefore remains unresolved and warrants ongoing investigation. This is of concern in both Australia and New Zealand, as well as other jurisdictions such as England, Scotland and Canada that have similar clinician-initiated orders. At the very least, their rates of use should be questioned, and their application limited to situations where some benefit has been suggested.

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First received 14 Feb 2024, final revision 1 May 2024, accepted 1 May 2024

Data availability

Data availability is not applicable as this paper did not involve the collection or analysis of primary data.

Author contributions

S.K., C.M. and L.B. had the original idea for the paper. S.K., C.M., T.Z., C.B. and L.B. contributed to interpreting the results of the relevant papers. S.K. wrote the first draft. This was then revised critically for important intellectual content by the other authors (C.M., T.Z., C.B. and L.B.) before S.K. incorporated amendments to produce the final draft, which was then approved by all the other authors.

Funding

This study received no specific grant from any funding agency, commercial or not-for-profit sectors.

Declaration of interest

S.K. is a member of the International Editorial Board of *BJPsych Open*. He was also first author of one of the articles that is the subject of this editorial. Co-authors who were not involved in that original research have been added to ensure balance. All four co-authors have nothing to disclose.

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