Doing time on a TC: how effective are drug-free therapeutic communities in prison? A review of the literature

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Abstract

Purpose – *Therapeutic communities (TC's) are consciously designed, living-learning environments designed to evoke social, psychological and behavioural change. The success of the residential TC model saw these community-led, self-help environments for addicts move into custodial settings and early evidence suggests this transition was effective. The purpose of this paper is to examine the evidence relevant to the effectiveness of prison based, drug-free TCs.*

Design/methodology/approach – *In order to establish their true efficiency, particular focus has been placed on studies conducted over the last ten years (2007-2017).*

Findings – *To date, the TC remains superior to other forms of drug treatment in reducing recidivism and drug relapse amongst addicts who offend.*

Originality/value – *Outcomes of this review highlighted the importance of aftercare in providing transitional support; a fundamental aspect of treatment necessary for success and for maintaining long-term recovery post release.*

Keywords *Effectiveness, Therapeutic communities, Prison, Evidence, Recidivism, Drug*

Paper type *Literature review*

Literature search

The researcher searched PSYCINFO, SCIENCEDIRECT, GOOGLESCHOLAR, and SCOPUS using a combination of keywords and thesaurus. These were: therapeutic AND/OR community, TC, effectiveness, evaluation, substance misuse, drug, alcohol, prison, prison based, correctional, incarceration, treatment, outcomes, follow up. Where applicable, well-known TC case studies were typed into the search bar such as "Amity", "Key/CREST" and "'stay n' out". Boolean operators were utilised, for example, AND, OR and "*", for example "effect*" thus combining the terms effect, effective and effectiveness into one search task, thus widening our search power. The researcher also manually searched the references in identified articles, reviews and books. Official institutional websites were accessed; the British Psychological Society, Public Health England, Ministry of Justice, National Treatment Agency for Substance Misuse, European Federation of Therapeutic Communities and the National Offender Management Service.

Although there was no timeframe specified for the literature search due to the researcher wanting to access the development of prison-based TC literature over time, particular focus was given to studies produced in the last ten years; so between 2007 and 2017. The aim of this study was to consider the evidence relevant to the effectiveness of correctional TCs in treating substance-misusing offenders with analysis of contemporary studies to establish their efficacy.

Articles with topic content relating to prison and TC's were reviewed inclusive of those studies outside of the UK. Studies that evaluated TC's for mental health/ personality disorder treatment alone were omitted from the review as the focus of this study was around substance misuse

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treatment. For the purpose of this review, studies that considered modified TCs (MTC) were excluded. In order to maintain validity, the researcher considered only studies that could evidence some fidelity of the TC model. This was assessed mostly through descriptions of TC theory and approach within each study with particular focus on a community as method, self-help approach, rewards and sanctions systems and a hierarchical model. Programmes that had been modified and/or had some of these specific aspects of TC ethos altered, were therefore not considered.

A drug-free therapeutic community (TC)

TCs are consciously designed, community-led, living-learning environments designed to evoke social, psychological and behavioural change (De Leon, 2000; Greenwall, 2004; Kennard, 2004; Lipton, 1998; Malinowski, 2003; McMurran, 2007; Powis *et al.*, 2012; Taxman and Bouffard, 2002; Vandevelde *et al.*, 2004; Welsh, 2007). The substance misuse TC programme itself is an intensive, 24/7 structured programme where residents live together and are encouraged to confront and un-learn addictive and anti-social behaviours (De Leon, 2010). The TC model views drug dependence as a disorder of the whole person in that it is a sign that something is wrong with how the person perceives themselves and the world around them (De Leon, 2000; Greenwall, 2004; Hester and Seehy, 1990; Kumpfer *et al.*, 1990; Lipton, 1998; Malivert *et al.*, 2012). The TC uses the community itself as an agent of change by shaping the structure of the community so that it is both safe yet challenging. The TC provides a healing and learning setting in which good behaviour can be learned and emotional difficulties experienced, discussed and resolved. The community is, therefore, the most important part of a TC providing a fundamental self-help approach where peers support each other to overcome dependence and build a new and positive life for themselves (De Leon, 2000, 2010; Greenwall, 2004; Kennard, 2004; Lipton, 1998; Malivert *et al.*, 2012; Powis *et al.*, 2012; Taxman and Bouffard, 2002; Vandevelde *et al.*, 2004; Welsh, 2007).

The TC has existed for over 60 years and has seen the notion of group-based, peer-led psychotherapy treatment, for substance misusers thrive and develop into a global treatment model (De Leon, 2000). Before we draw upon the literature surrounding prison-based TCs as is the main function of this paper, we need to give a cursory nod to the evidence available surrounding TCs for substance misuse in the community. The first residential TC for addicts opened in America in 1958 and led the movement for community living and providing support through self-help and group work. The idea that drug users themselves could be part of the solution took off and ten years later, the first residential TC opened up in the UK and quickly became an established treatment model. Evaluation of the early TC programmes has been widespread, varied in design and has produced some significant findings in favour of the TC as an effective (Antrique *et al.*, 2008; De Leon, 2000; Vanderplasschen *et al.*, 2014; Inciardi *et al.*, 2004; Kennard, 2004; Lees *et al.*, 2004; Malivert *et al.*, 2012; Martin *et al.*, 1999; McMurran, 2007; Mitchell *et al.*, 2007; Pelissier *et al.*, 2000; Powis *et al.*, 2012; Prendergast *et al.*, 2004; Smith *et al.*, 2006; Wexler De Leon, Thomas, Kressel and Peters, 1999; Whiteley, 2004), and indeed, cost-effective treatment option for substance misusers (De Leon, 2010; Yates, 2010). Despite the growing evidence-base in support of TC treatment, some continue to dispute its success, highlighting ambiguous outcomes and methodological flaws in study design. Indeed, some researchers have pinpointed the lack of randomised, double blind trials (RCTs) as reason to suggest the effectiveness of TC treatment is still yet to be proven (Bale, 1979; De Leon, 2010, p. 104, 2015; Smith *et al.*, 2006).

Doing time on a TC

Following a drug epidemic in the USA, the 1970s saw the movement of drug free, hierarchical TCs into correctional establishments. To do this, the community TC had to be adapted to fit into a custodial environment. Introducing a holistic treatment model where personal exploration, self-disclosure and individual growth and responsibility are deeply encouraged and placing this into an establishment based around punity, sanction and security were not without its challenges. The early research, however, suggests that the transition was successful

(Field, 1985, 1989; Inciardi *et al.*, 1997, 2004; Knight *et al.*, 1997, 1999; Lockwood and Inciardi, 1993; Martin *et al.*, 1999; Prendergast *et al.*, 2004; Pelissier *et al.*, 1998, 2000, 2003; Smith *et al.*, 2006; Wexler *et al.*, 1990; Wexler, De Leon, Thomas, Kressel and Peters, 1999; Wexler, Melnick, Lowe and Peters, 1999).

Many of the early prison TC evaluations were robust in terms of the large sample sizes they employed and the quasi-experimental research design they utilised (Wexler and Williams, 1986; Wexler *et al.*, 1990; Wexler De Leon, Thomas, Kressel and Peters, 1999; Wexler, Melnick, Lowe and Peters, 1999; Martin *et al.*,1999; Morral *et al.*, 2004; Inciardi *et al.*, 2004). In summary, findings were that those who completed prison TC treatment were less likely to be re-arrested and/or use substances in the first six months following treatment and up to 12 months after treatment than comparison groups (Morral *et al.*, 2004; Wexler *et al.*, 1990; Wexler De Leon, Thomas, Kressel, and Peters, 1999). The studies that followed up to five years post treatment continued to favour TC conditions over their comparison counterparts (Prendergast *et al.*, 2004; Inciardi *et al.*, 2004). Two important factors consistently recorded amongst these studies was time in treatment and aftercare. These variables were found to be most consistently associated with reduction in recidivism and substance use (Antrique *et al.*, 2008; Inciardi *et al.*, 2004; Martin *et al.*, 1999; Malivert *et al.*, 2012; McMurran, 2007; Wexler De Leon, Thomas, Kressel and Peters, 1999; Wexler, Melnick, Lowe and Peters, 1999; Wexler and Williams, 1986; Wexler *et al.*, 1990). The more time spent in TC treatment, the more successful offenders were post treatment and those who attended an aftercare option after their inpatient stay appeared to have some of the best results. These studies therefore highlight the importance of the right doseage of treatment and continuation of care (De Leon, 2000, 2010).

It should be noted, however, that two of the large-scale studies found a cut-off point in terms of how long the positive impact of TC treatment lasted. At three years post treatment, Amity prison reoffending rates were no longer significantly different from their comparison treatment groups (Wexler, Melnick, Lowe and Peters, 1999) and by five years post treatment, The KEY/CREST project in Delaware retrieved such high recidivism and relapse rates that the fact they were still significantly better than comparison groups did not really matter (Inciardi *et al.*, 2004). These outcomes may suggest that TC rehabilitation for offenders is better than comparison substance misuse treatment, however, that this effect has a shelf life that is eventually no more effective than standard treatment. This is certainly an area for future study, particularly around the relapsing nature of criminality and substance misuse and the long-term need for continued treatment and care.

Contemporary studies, a summary of the evidence

With a focus on more contemporary outcomes and recent developments, the researcher was able to make a more considered critique of the evidence relating to TC treatment and what works for substance-misusing offenders. Sadly, there has been only a handful of studies completed over the last ten years that are worthy of discussion within this paper, however, the author felt that these were robust and poignant enough to review. The author excluded any study that was not at least of a quasi-experimental design (Staton-Tindall *et al.*, 2009), that had a small sample size, or that did not examine recidivism or drug relapse in some manner, for example looking at soft or secondary outcomes of treatment (Lee *et al.*, 2014). It was felt these studies were not robust enough to comment on and/or that their findings were of less significance to the drug treatment policy makers and commissioners who are after a more succinct review of the evidence and linked implications.

In summary, the evidence reviewed over the last ten years continues to provide evidence in support of the TC model over other prison-based treatment for substance misusers (Jensen and Kane, 2010, 2012; Mitchell *et al.*, 2007, 2012; Olsen and Lurigio, 2014; Sacks *et al.*, 2012; Welsh, 2007; Welsh and Zajac, 2013). Reports highlight that when in-prison TC treatment is offered in conjunction with a community aftercare intervention, this produces the best results in terms of reducing recidivism and drug relapse than any other substance misuse programme for offenders (Jensen and Kane, 2010, 2012; Mitchell *et al.*, 2012; Olsen and Lurigio, 2014; Sacks *et al.*, 2012). It should be noted, however, that two studies found negative outcomes for

TC treatment and that drug relapse findings were, at times, tenuous. Furthermore, one study mirrored early findings of a diminishing treatment effect over time (Jensen and Kane, 2010, 2012; Mitchell *et al.*, 2012; Welsh *et al.*, 2014; Zhang *et al.*, 2011).

Contemporary findings, a review of the evidence

In 2007, Mitchell, Wilson and MacKenzie completed a meta-analysis on in-prison drug treatment and reviewed 66 robust studies examining reoffending and drug relapse outcomes. They found that the most consistent evidence of treatment effectiveness came from evaluations of TC programmes. Importantly, these findings were robust to methodological variation and even the most rigorous of evaluations maintained their positive impact on recidivism (Mitchell *et al.*, 2007). Mitchell and colleagues revised this meta-analysis in 2012 updating the review to include all studies up to 2011 synthesising results from 74 evaluations. Again, results consistently found support for the effectiveness of TC treatment across both outcome measures and that this was robust to variations in methods and samples (Mitchell *et al.*, 2012). In both reviews, Mitchell *et al.* highlighted that the impact on drug relapse was similar in magnitude to the outcome of recidivism, however, that it was not statistically significant maintaining that this was due to the smaller number of studies examining TC effects on substance misuse. The author emphasised the issue of aftercare in that the programmes with aftercare options produced larger effect sizes than the programmes without (Mitchell *et al.*, 2012).

In 2007, Welsh conducted a multi-site evaluation of stand-alone TC treatment programmes (without aftercare option) in the state of Pennsylvania. TC programme fidelity was evidenced and matched comparison groups were employed. At two years follow up, Welsh found that reincarceration and re-arrest rates were significantly lower for TC inmates despite participants having not accessed aftercare, however, that post treatment drug relapse although lower, was not significantly lower (Welsh, 2007). Welsh and Zajac (2013) continued this study, tracking participants up to four years post treatment and experienced the same outcomes. Both studies have showcased that TC treatment produces significant long-term reductions in reincarceration and that this is independent of community aftercare (Welsh, 2007; Welsh and Zajac, 2013). Mitchell *et al.* (2007, 2012) found similarly variable effects for drug relapse and that significant outcomes for this variable were found ONLY when mandatory aftercare was ALSO provided. Researchers have indeed, argued that the effects of aftercare are additive and supplementary to the benefits of in-prison treatment and provide a crucial continuity of care element in reducing substance abuse and recidivism (Inciardi *et al.*, 2004; Knight *et al.*, 1999; National Institute on Drug Abuse (NIDA), 2006; Prendergast and Wexler, 2004; Prendergast *et al.*, 2004; Welsh, 2007, p. 1493). This suggests, therefore, that had the Pennsylvanian prison TC programmes included a community aftercare option, drug relapse findings may have significantly improved.

Around the same time as Welsh's studies, Jensen and Kane had been examining the effect of TC treatment in Idaho correctional facilities looking at the impact on re-arrest rates amongst substance-misusing offenders (Jensen and Kane, 2010, 2012). These studies similarly examined prison TCs across multiple sites that were able to confirm TC fidelity, robust sample sizes and that this time, employed an aftercare component. Both studies found that the offenders who accessed TC programmes were significantly less likely to be re-arrested than their matched comparisons (Jensen and Kane, 2010, 2012). Indeed, at four years post treatment the comparison groups were 3.3 times more likely to be re-arrested than those who were allocated to the TC group (Jensen and Kane, 2012).

Zhang *et al.* (2011) made efforts to replicate the earlier five-year outcome study conducted in Delaware in 2004 (Inciardi *et al.*, 2004). Researchers evaluated TC treatment in a Californian Prison using a quasi-experimental design. TC fidelity was evidenced and participation in an aftercare option was encouraged. Where the Delaware study found a positive effect of TC treatment each year, Zhang and colleagues did not, with researchers finding no difference between the treatment groups on outcomes or re-arrest and recidivism (Zhang *et al.*, 2011). Indeed, at five years follow up, both conditions were returning to prison at the same rate.

It should be noted, that there were some key limitations to this study thus offering explanation behind this uncharacteristic finding. Firstly, the sample was of mediocre size and the study focused on one prison programme suggesting that the findings may not to be generalisable to other TC programmes. More importantly, the aftercare option that was offered in this study was not mandatory and in fact only 25 per cent of participants attended this. As was discussed above, for TC treatment effects to be reinforced and be most successful, it is thought that additional aftercare services should be mandated; thus this would potentially explain the poor outcomes found in this evaluation (De Leon, 2000; Inciardi *et al.*, 2004; Knight *et al.*, 1999). It is of note that in the original study by Anglin in 2002, who looked at the one year post treatment outcomes; those who did TC and aftercare did fair better as a group, however, over the five years as shown in Zhang's current study, even those who did the aftercare option returned to prison at the same rate as comparisons (Zhang *et al.*, 2011). This finding is similar to the five-year Amity prison study by Prendergast in 2004 and potentially provides further evidence of a treatment cut-off effect (Zhang *et al.*, 2011). This is certainly an area for future study particularly around the cyclical nature of addiction and the notion that transitional-care may need to be offered and provided to such individuals indefinitely if complete recovery is to be achieved.

Despite decades of research into the effectiveness of the TC, critics continue to request a battery of RCTs in order to provide a bona fide evidence base for this model of drug treatment (De Leon, 2015). Many, however, continue to argue against this point stressing that all evidence is equally valuable and that an RCT-type trial may not always be necessary as long as the chosen research design adequately addresses the research question (De Leon, 2010, 2015, p. 1108).

In the last ten years there have been two RCT trials of drug-free, prison-based TCs both conducted with interesting outcomes that can clearly add weight to the current evidence base. In 2012, Sacks, Hamilton and McKendrick ran an RCT evaluation with a correctional TC in Colorado for substance misusing women. The sample size was modest and the trial focused on outcomes of criminal behaviour, drug use, mental health, trauma exposure and HIV risk behaviour and assessed these at six and twelve months post release. Outcomes were that at six months, there was a significant effect for TC treatment with reoffending rates, drug relapse, mental health and trauma domains. At twelve months, reoffending and drug relapse rates remained significantly improved for the TC participants (Sacks *et al.*, 2012). Importantly, authors reported that 83 per cent of the women across both groups (no differences between the two groups) received some form of aftercare in the 12 months post release. This was in the form or community-based substance abuse or mental health community services. This is a positive finding supporting combined TC and aftercare treatment and particularly for female substance misusing offenders (Sacks *et al.*, 2012).

Welsh *et al.* (2014) conducted one of the most recent trials on prison TCs and employed an RCT design. The sample was medium in size and authors confirmed TC fidelity and highlighted the importance of this. Prisoners were randomly allocated to either TC treatment or to a shorter, less intensive group counselling programme and post treatment data were collected over a three-year period. Authors concluded that results had failed to demonstrate the predicted superiority of prison TC (Welsh *et al.*, 2014, p. 167). Outcomes reported were that TC participants experienced higher recidivism rates than their matched comparisons. On closer inspection, outcomes appeared vague and somewhat variable with some analysis producing no differences between the groups or small non-significant differences as well as the described findings negating the TC condition. The authors superficially acknowledge that they were unable to assess the fidelity and quality of the aftercare services provided in this study and it is unclear as to whether any participants accessed any aftercare at all and if they did what this was. This is a significant limitation in this study that perhaps reduces the robustness of the trial and potentially provides an explanation behind the unexpected results.

From the last ten years, one paper stands out in terms of it being the most succinct and robust trial conducted on prison-based TCs whilst being one of the most recent; a study conducted by Olson and Lurigio (2014). This evaluation was not an RCT although researchers appeared to make considerable efforts to create a stringent and robust evaluation of quasi-experimental design that appeared to adequately address the research question (De Leon, 2015). The study had an extremely large-sample size or over 4,000 participants and

carefully matched participant groups. Authors were able to evidence TC fidelity at some length and aimed to assess TC treatment with and without a controlled aftercare option. Detailed descriptions were provided of the rigorous statistical testing employed in this study and the evaluation extended the longest yet in a TC trial at over six years follow up (Olsen and Lurigio, 2014). Findings were that those who participated in TC treatment and aftercare had significantly reduced reoffending rates in comparison to all other groups. It should be noted that those who attended TC treatment alone actually faired worse than any other comparison group in the study (Olsen and Lurigio, 2014). Overall this evaluation does provide a strong support for TC treatment in conjunction with aftercare. As with many of the studies reviewed, the importance of continuity of care into the community appears to be a vital component in the effectiveness and longevity of TC treatment for substance misusing offenders.

Conclusion

The aim of this paper was to consider the evidence relevant to the effectiveness of prison-based TCs that treat substance-misusing offenders. Significant focus was directed towards analysis of contemporary studies in order to establish current TC efficacy. Overall, findings remained that TC treatment is superior to other drug treatment in rehabilitating offenders. These findings were generally robust across varying methodologies and have shown to be consistent over considerable time. Studies highlighted the importance of post release aftercare in increasing treatment effects and future research would benefit from examining type, fidelity and programme description of aftercare options so as to provide a more robust examination of the TC treatment package. Indeed, questions surrounding the possible factors for the dissipating of the longer-term treatment effects should be posed and this is something policy makers should consider in order to maximise the effects of prison-based drug treatment and maintain life-long recovery.

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