Can we help?

MANNERS MATTER • PART 2

Around 'treatment' are the things services do to help patients get to treatment – or just to help, full stop. From the unglamorous periphery, *Manners Matter* places these centre stage.

by Mike Ashton
Editor of FINDINGS
da.findings@blueyonder.co.uk
0208 888 6277

THE MANNERS MATTER SERIES is about how treatment services can encourage clients who make contact to return and stay the course, not by what type of therapy they offer, but by the manner in which they offer it. Part one dealt with some basic expressions of the 'good manners' which make for retention-enhancing treatment: responding quickly, sending reminders, keeping in touch. This part explores the impact of plain being helpful: offering a lift or to look after the children, convenient opening hours, realistic attendance requirements.[1]

As with reminders, aiding in these ways could serve several functions. First is the direct one of making treatment more accessible. Typical substance misuse caseloads live hand-to-mouth lives characterised by crises, instability, poverty, and poor housing. Without help, even the highly motivated may be unable to make and sustain contact.[1] Such help might also show that the service is being understanding, responsive and caring, strengthening the bonds at the heart of effective therapy. What a helping hand conveys about its owner could be as important as what it does for the recipient.

A related, much bigger agenda is particularly the province of case management: addressing the money problems, disrupted relationships, legal and housing difficulties which drive patients to attend treatment services.[1 2 3] Often these difficulties also obstruct access to treatment because people cannot afford transport or childcare, live such stressed lives that treatment drops down the list of priorities, or lives so disordered that keeping appointments is a challenge. While acknowledging this broader agenda, here we stick with the smaller task of overcoming some common, specific obstacles.

WALK, NOT JUST TALK

For good reason, researchers have focused on practical, concrete help. People with sufficient resources and whose lives are sufficiently under their control could perhaps just be talked through access problems and left to implement the solutions. For many dependent substance users, this will not be enough.

Precisely this process was tried with randomly selected phone callers to a US service in Portland, who were also randomly allocated to come for intake as soon as possible the same day or given an appointment for on average 10 days later.[4] For these primarily stimulant users, rapid access did make a difference; discussing how to overcome whatever might stop the caller attending made none at all. In contrast, practical aid has usually been found to improve treatment uptake and often outcomes too. Helping to the client get to the service is an obvious first step.

MM2 Could you do with a lift?

Some services find this their greatest asset in the drive to improve treatment uptake

Studies commonly find that the further people have to travel for treatment, the less likely they are to do so. In these mainly US studies,[5 6 7 8] patients were typical of the deprived populations who access public treatment services: mostly black or Hispanic, single, unemployed, with no health insurance or only public insurance. Cars or taxis may be beyond their reach, they may be denied a driving licence, and live in areas poorly served by public transport.

However, showing a link between transport obstacles and treatment attendance does not necessarily mean that helping overcome those obstacles would improve attendance and outcomes.[9] This is partly because some treatment populations[10] in some areas are in greater need of help than others. Los Angeles, infamous for its car-dependent transport system and congested streets,[74] is a prime example, and the site of several studies. As we'll see, results are also affected by how the aid is provided and whether it is used as a tool for individualised, holistic care.

A definitive test of the role of transport aid would involve randomly allocating some clients to receive this aid and others not, ensuring that this was the only difference between them. No such trial has been done, but the work reviewed next strongly suggests that providing transport really can help.

TRANSPORT CRITICAL FOR METHADONE SERVICES

An analysis which takes us close to this conclusion comes from DATOS, the major national US drug treatment study. Understandably, the findings were

strongest in respect of methadone services, which in the USA demand daily attendance over long periods.

One of the DATOS sub-studies showed that clients stayed longer at outpatient services which provided transportation ◤ *chart*.[11] After taking caseload differences into account, methadone patients were three times more likely to stay for a year at clinics which offered drivers and vehicles than when no assistance was offered. At outpatient counselling services, the same was found for 90-day retention, but the link was much weaker. In contrast, no retention advantage was gained by reimbursing[ii] clients' transport costs – in fact, half as many clients stayed for 90 days at counselling services which met costs as at those which provided no help at all.

Several intriguing but speculative explanations were advanced for these findings. Perhaps reimbursing costs had opposing effects – helping with the money side, but adding the frustration of having to complete forms and wait for the refund, potential friction points between clinic and patients.[iii] Providing a driver plus vehicle entailed no such frustrations and supplied an escort to ensure that the journey was completed ◤ *Let me take you by the hand*, page 7. The driver's arrival would also have imposed structure on the patient's day. Perhaps, too, this degree of help signified a service which cared in other ways, encouraging patients to stay in contact.

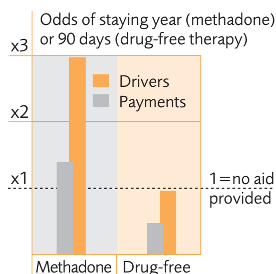
FREE BUS TICKETS IMPROVE RETENTION

One of the Los Angeles studies suggested that if methadone services require impoverished clients to attend daily, they might also pay for them to get there – but through up-front vouchers rather than reimbursement.

The findings came from the Los Angeles Enhanced Methadone Maintenance Project.[12] It targeted HIV-infected injectors or those at high risk of infection including sex workers and the partners of injectors. Almost all the 500 subjects were unemployed, engaged in petty crime, prostitution or drug dealing and had criminal records. Nearly half were women.

They were randomly referred to the standard or to the enhanced programmes. Both required daily attendance, but among the enhancements were bus tokens for travel to the clinic. Tokens were handed to all patients in the first month and in months two and three to those who had attended at least three quarters of their appointments,[13] and they did seem[iv] to help patients avoid being thrown off the programme for failure to attend or otherwise comply with treatment. Largely as a result, at the enhanced clinics half as many patients exited treatment in the first three months.[14] Over the next nine months, the enhanced option's retention advantage eroded until it was no longer statistically significant.

There remains the conundrum of why



free transport worked at these methadone clinics but not in the DATOS study.[11] First possibility is the Los Angeles context. Second, the selection for the study of particularly disadvantaged drug users for whom fares might have been a significant disincentive. Third is the use of up-front vouchers rather than the reimbursement systems used by most of the methadone clinics in DATOS, removing the potential for friction with staff.

TO GET ON TO METHADONE, I'LL GET THERE

Positive findings from the methadone studies cited above contrast with negative findings from Philadelphia – but this was a study of the *intake* process, not whether transport helped patients *keep* coming day after day, month after month.

The study sampled 102 parenting and/or pregnant women referred to a women's outpatient treatment service.[15] About 8 in 10 were primarily using heroin and most were offered methadone maintenance. They were randomly assigned to normal intake procedures or to these plus phone reminders, childcare, and a van to take them to and from intake appointments. Thirty of the 46 women offered these used the drivers,[v] yet the entire package resulted in only 8% more women (73% versus 65%) completing intake.

The high rate of intake completion in this study is attributed to the pulling power of methadone, especially in the rare context of a female-specific programme. With fares already paid for if the women wanted, the chance of a securing a place on a sympathetic methadone programme seemed incentive enough to make the few journeys required to complete admission, regardless of whether transport was provided.

HELPS TOO AT COUNSELLING SERVICES

Though less so than at methadone services, transport aid has also encouraged Los Angeles' drug users to enrol and stick with counselling services.

Serving the city and surrounding county, a central unit referred applicants to publicly funded programmes. From this source, 145 people were included in the study; another 26 were referred from the street by researchers.[1] Stimulants, psychedelics, cannabis, and alcohol were the main substances involved, outpatient counselling the main response. Six months later, over a third of the 171 subjects had not started treatment. Rarely was transport cited as a reason for not even contacting a service, but of those who had made contact, about 1 in 7 indicated that transport problems contributed to their decision not to take it any further.

The study went on to investigate what made the two-thirds who had started treatment stick with it.[16] Transport was among the few relevant factors. Asked at treatment entry to rate the importance each of 30 services, most clients highlighted transport. Among them, clients who had *not* been helped stayed on average for less than three months compared to four if help had been provided. Helping with transport elevated retention to the same level as among clients for whom transport was not an issue.

Even after other potentially overlapping need-service matches had been taken into account, the effect of meeting transport needs remained statistically significant, but it

GOLDEN BULLETS Key points and practice implications

- Practical help to overcome access obstacles such as transport and childcare directly improves retention and also shows that the service is responsive and caring.
- Transport is most important among impoverished populations required to attend methadone services daily for supervised consumption.
- Direct help in the form of a driver and vehicle works best because it provides an escort and structures the patient's day. If this is not possible, provide pre-paid passes in preference to reimbursing costs.
- Transport augments efforts to link patients to external agencies such as housing and employment services.
- Childcare is essential if women are to be attracted and retained, especially in long-term residential care, but may not be used if it is unfamiliar or seems to threaten the mother's custody of the child.
- Flexible and realistic opening hours and attendance requirements mean patients with unpredictable lives are not set up to fail and allow others to maintain normal family and working lives.
- Especially in coerced criminal justice regimes, clients who do not have severe problems can be over-treated or over-supervised, with potentially detrimental effects on their abilities to return to or sustain a conventional lifestyle.

was not an overwhelming factor. Probable reasons were that the counselling services were more local than the methadone clinics and, unlike the clinics, most did not require daily attendance.[1]

IT'S TRUE – WOMEN NETWORK BETTER

Also in Los Angeles, another study focused on outpatient counselling and therapy programmes.[17] Special funding had encouraged the provision of female-friendly services, so two-thirds of the 302 clients followed up eight months after treatment entry were women. Most clients were out of work and poor; crack, other stimulants, cannabis and alcohol were their main intoxicants. At the follow-up they were asked how useful they had found various services. Along with other variables, their replies were related to a composite measure of how long and how intensively (sessions attended per week) they had engaged with treatment.

The most striking overall finding was how much engagement depended on what services did and how this was perceived. One of the strongest links was with transport: clients who had both received transport services and found them useful had engaged far more deeply. The link was stronger for men but highly significant for both genders, of the same order as links with how useful patients had found treatment itself.

A further analysis attempted to identify which of the many factors were influential in themselves rather than because they overlapped with other factors. For men, transport remained the service most strongly linked to engagement. Among women it dropped out, but not necessarily because it was unimportant. At the start of treatment six in ten had friends and family prepared to help with issues such as transport, significantly more than the men.[18] Treatment agencies helped further by enabling female patients to share transport solutions, not noted among the men.[17] Also, factors which remained linked to women's retention (such as the usefulness of on-site medical services) themselves depended on being able to get to the agency. Lastly, providing transport could have contributed to the women's impression of how caring their counsellor had been, which was related to engagement.

TRANSPORT PLUS HOLISTIC CARE: MORE POWERFUL THAN THE PARTS?

Transport can be expected to have the greatest impact when it is used to get people to services they value and which actually do help. In turn this implies that the treatment agency is interested in, and capable of, making a broad assessment of need, and can appropriately direct clients to services. Programmes like these might, for example, not only actively refer patients to appropriate psychiatric services, but provide transport to see that patients get there. Hints of this effect can be seen in the Pennsylvania Wrap Around Services Impact Study.

The study analysed retention records and interviewed clients from nine publicly supported outpatient treatment centres.[40] Their patients were primarily unemployed alcohol or crack users involved with the criminal justice system. Though some of the centres required frequent attendance, in the first three months just 5% of patients were helped with transport, whether to the centre itself or to other sources of help. Overall, receiving transport aid was not linked to improved retention or outcomes; possibly its impact had been obscured because people with the greatest problems resorted to it.[23 xiv]

But there was one exception: a strong relationship between transport aid and improved mental health a year after starting treatment, *as long as* this aid had been provided by a service which also emphasised individualised treatment and access to a broad range of services. This might be dismissed as a statistical glitch, except that the same qualification applied to relationships between outcomes and aid with family and mental health problems or subsistence.

Individualised and holistic care are also key elements of case management, a role specifically designed to link patients to external services. But a national US study found that this was generally effective only when combined with transport aid.[19] The main findings of this survey of US outpatient drug treatment units have already been described: services which provided transport also had clients who made the greatest use of external services such as housing and employment ► *Transport links to external services*, below. In contrast, case management seemed relatively ineffective. But when case management was combined with transport, the combination *was* more strongly linked to service use (TB screening, medical examinations, and employment counselling) than either alone.

A tentative interpretation of these findings is that transport aid is targeted more effectively by programmes which carefully assess and try to meet the individual's broader needs. In turn, this aid helps ensure needs are met, creating the synergy seen in both studies.

TRANSPORT LINKS TO EXTERNAL SERVICES

Siting medical and social services at the treatment centre is the surest way to get patients to use them,[19 20] but where this cannot be done, providing transport stops people falling through the gaps.

These were the clearest findings from a national survey of US outpatient drug treatment centres based on reports from their directors and staff.[19] Even after other relevant features had been taken into account (like referral arrangements and case management), patients made greater use of medical, employment, financial and housing services at centres which helped with transport.

Such findings make transport a potentially important way to link patients to sources of help with broader life problems, in Britain now starting to be given prominence in national policy.[21 22] But transport may not be enough unless coupled with a service which cares about those links and has an effective system for making them ► *Transport plus holistic care: more powerful than the parts?*, above.

BEFORE A CLIENT COULD SERIOUSLY COMMIT TO TREATMENT, BASIC HUMAN NEEDS HAD TO BE MET AS WELL AS CHILD CARE TRANSPORTATION AND HOUSING

PRACTICAL AIDS BENEFIT MOST NEEDY

When studies have asked whether it helped when the agency as a whole offered transport, the answer has generally been positive. At the level of the individual, things can look quite different. Clients with the poorest prognoses due to social isolation and poverty tend to be the ones who take advantage of free transport (and other aids), the use of which then seems linked to a poor outcome. It takes a sophisticated analysis to identify whether these aids may in fact have make a bad situation somewhat better.

An example comes from Illinois, where the state provided childcare, transportation and "outreach" (presumably home visits) at selected outpatient centres for drug using mothers.[23] Compared to non-enhanced agencies, this was expected to improve access to the centres' services, which in turn would improve outcomes.

That's more or less how it turned out. Women who made use of the access enhancements also accessed more counselling, family, medical and social services. In turn, increased use of these services was associated with a greater likelihood of being abstinent from alcohol and drugs 14 months after entering treatment. Partly in these ways, enhancing the services also enhanced their outcomes.[vi] Because they were widely used, transport and outreach made the greatest contributions. As we'll see later, this was not the case for childcare.

But paradoxically, use of each of these services – transport most of all – was also statistically related to greater drug use at follow up. The explanation was that these aids were resorted to by women with the "most serious health, mental health, family and drug use problems". By giving these women access to the services they needed, the enhancements had helped more become abstinent. However, for many this was not enough to elevate their recovery to the level of less disadvantaged patients.

MM2 Let me take you by the hand

Sometimes providing an escort is the only way to ensure that clients don't stray (geographically or motivationally) in the transitions between referral and treatment or between treatment sites. In DATOS this could have been partly why providing drivers and vehicles was so strongly linked to retention in methadone programmes.[11] In Baltimore, it also seemed the overriding influence in a study of aftercare.

The study tried three levels of intervention in an attempt to secure the aftercare attendance of 166 patients (mainly black, male, single, unemployed, cocaine, heroin and alcohol users) following a three-day inpatient detoxification.[24] Some were randomly assigned to the basic level: an aftercare contract, bus pass to the aftercare centre, and instructions to attend the following day. Just 24% turned up and enrolled. Neither were patients swayed much by adding the incentive of $13 of bus or petrol tokens. This led 44% to enrol, not significantly more. But adding an escort from the detoxification unit to the aftercare centre did significantly increase enrolment to 76%. Altogether, the added measures had tripled the numbers at least starting aftercare.

EXPERIENCE SHOWS ESCORTING WORKS

Also in Baltimore, researchers based at prenatal clinics struggled to engage pregnant drug users in four weekly motivational therapy sessions.[25] The women were overwhelmingly black, unmarried, unemployed, poorly educated, and generally had a history of cocaine or heroin dependence.

Reasoning that unmet basic needs were obstructing engagement, part way through the study the therapists tried starting each session by identifying those needs and referring the women to relevant social and welfare services. Despite this, and even after transport had been organised and funded, they found that escorting patients to the appointments was the only way to secure at least initial attendance. The result of accessing this broader provision was reduced drug use and improved welfare.

Escorting was also introduced in Chicago when initial attempts to bring relapsed former patients back in to treatment proved disappointing.[26] Every three months a randomly selected half of former patients were interviewed by staff from the central referral unit, who assessed whether they should return to treatment. Those judged in need were transferred to a 'linkage' worker to motivate the patient, arrange the return, and give practical aid.

After nine months, improved but still poor return rates prompted further enhancements including escorting and transportation. These did raise return rates (we don't know how much), but over the full two years of the study, just a third of patients encouraged to return to treatment did so. Overall, the study shows how 'hands-on' the effort had to be to re-engage these typically unemployed, crack dependent patients, many with a history of homelessness and sexual or physical abuse.

MM2 Can we help with the children?

Transport and childcare commonly feature among the access obstacles which affect women more often or more sharply than men.[27,28] Their predicaments were described well in a report on a statewide effort to improve care of drug using mothers in California. Officials found that "before a client could seriously commit to treatment, basic human needs for shelter, food, and clothing had to be met first, as well as child care, transportation, and transitional housing".[29]

Why childcare might be important can readily be understood. Female substance misuse patients are typically young single mothers with dependent children, living alone or with other drug users, alienated or distant from relatives, isolated from the local community,[30] and unable to afford professional childcare. Their childcare options can be very limited.

It is, however, difficult to *prove* that providing childcare makes a difference. Agencies which have developed their own provision may be more attractive to women, but are probably also female-friendly in other ways. Only adding childcare to randomly selected agencies can prove that this is what improves retention. But these bolt-on, unfamiliar services may be rejected by mothers. Often, too, childcare is part of a more comprehensive package of special services.[31]

CHILDCARE LINKED TO LONGER STAYS

Observations of attendance patterns when treatment is provided at home,[32,33,34] on an outpatient basis,[29,35] or in residential units (each step increasing childcare difficulties) are thought to reflect the importance for women of childcare.[36] Unless this is provided, it can be extremely difficult to attract women with dependent children,[37] especially if they are below school age.[38] This circumstantial and anecdotal evidence can be firmed up by looking at what happens when childcare is or is not provided.

MODERATE LINK AT OUTPATIENT SERVICES

In the study of counselling services in Los Angeles which highlighted transport (*Helps too at counselling services*, page 5), nearly half the caseload were women[16] – probably why childcare was also prominent. When this was important to the client *and* provided by

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COURTESY OF ADELE YASKEY

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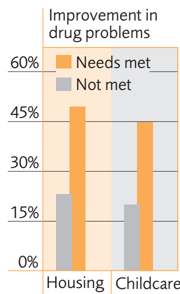


the service, retention exceeded five months, and six months after starting therapy drug problem severity had fallen by 45%. When it was important but *not* provided, clients left a month and a half sooner and problems fell by just 20%. Childcare was one of only two needs (housing was the other), the meeting of which was associated with better drug problem outcomes *chart*. It seems likely that childcare improved outcomes by improving retention.

Childcare was also considered important at the Pregnancy Substance Abuse Program in Ohio, which offered detoxification followed by intensive outpatient therapy.[39] From 1990, a revised regime including childcare became standard for drug using women under obstetric care. Nearly all were primarily using cocaine. After its introduction, 89% completed the inpatient phase compared to 61% beforehand, 83% referred to outpatient treatment started it compared to 46%, and completion of this demanding treatment more than doubled from 14% to 34%.

Some studies of outpatient services have found only a weak or no relationship between childcare and retention. This was the case for two of the studies cited in relation to transport, probably because in one childcare was almost universally on offer[17] while in the other there was virtually nil provision.[40] Still, in the latter study, 12 months after entering treatment the few, possibly atypical, women who had received childcare services demonstrated significantly greater reductions in alcohol and drug use.

STRONG LINK AT RESIDENTIAL SERVICES

Having your child with you was strongly related to retention at a residential drug rehabilitation centre in Florida.[41] With their children, 55% of women completed therapy, without, just four out of 35. The former also stayed on average over eight months, nearly three times longer. What this means about childcare is unclear because mothers allowed to keep their children may have stayed longer for some other reason – perhaps they were more stable or committed to treatment. But the reactions of separated mothers did suggest that concern over their children – aggravated by inability to find out how they were – prompted some to leave early.

Similarly, improved retention after a residential centre introduced a female-oriented programme may have been due to features other than allowing children to stay, but this is likely to have been a significant influence.[31] From 42 days before the changes, once these had become embedded, women stayed for on average 158 days. Women with children at the centre stayed even longer. The presence of the children seems to have exerted a civilizing influence on all the residents including the men, whose retention also improved but not as much.

Importantly, there is no evidence that children suffer in these situations and we can expect them to benefit from the reduced drug involvement of their mothers.[42 43] However, the impact on the children is an under-researched area.

DOES IT REALLY MAKE A DIFFERENCE?

All the studies cited so far simply observed relationships between childcare provision and retention or outcomes. Though the attempt was often made, such studies cannot eliminate other possible reasons for the findings. A few other studies have taken the further step of specially providing childcare to some women but not others to see if it really does make a difference. The record is patchy, partly it seems because these unfamiliar services may be distrusted by mothers who fear for the custody of their child.

SERVICES MAY BE REJECTED

The transport element of the experiment in Illinois has already been reported *Practical aids benefit most needy*, page 6. Childcare was another strand. In the mid '90s, records had revealed that women with dependent children were unlikely to complete outpatient treatment.[44] Around the same time, the state's family and substance misuse departments combined to pilot improved provision for drug using mothers whose children were being monitored by the child welfare system.[23] As we've seen, compared to standard agencies, the offer of childcare, transportation and outreach improved drug use outcomes by enabling the women to access a broader range of services.

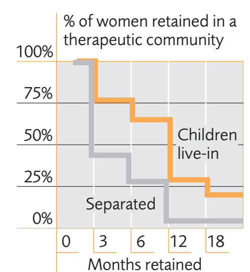
However, childcare made the smallest contribution, probably because in practice it was barely more widely used than at the standard sites. The only difference was in the uptake of home-based childcare, but still this was used by just seven of the 73 women at the enhanced agencies. It seems that on-site childcare already available at the agencies continued to be used but the new services were not. Some wariness was understandable; the services were, after all, being provided by state agencies which had the power to remove the women's children.

Something similar was certainly thought to have happened in the Philadelphia study of mainly heroin using mothers or mothers-to-be referred (generally for methadone maintenance) to a women's outpatient service.[15] A randomly selected half were offered extra services to help them complete the intake process, including childcare. Only three out of 46 took up childcare, primarily, staff thought, because these new clients did not yet trust the service. Most had not formally come to the attention of child welfare services and feared doing so.

FAMILIES REHABILITATE TOGETHER

Being able to keep your children with you is likely to be particularly important in long-term residential care. Confirmation comes from Florida, where a family-friendly environment tripled the average stay at a residential therapeutic community.

The study selected over 50 newly admitted cocaine-dependent women with children under 11 years old who could legally live at the centre.[45] They were randomly assigned either to the standard dormitory regime (children could visit three times a week but not live in) or instead to shared houses where children lived with their mothers. On average these women stayed about ten months compared to just over three in the standard regime. Within three months, 23% had left the live-in regime but 55% the standard version *chart*.



Previously women had stayed a far shorter time than men, now those living with their children stayed considerably longer.[vii]

OFFCUT 1

Research on injectors in London indicates that hepatitis C is spreading more rapidly than was thought and that HIV is also on the increase. In 2001 researchers interviewed 428 injectors aged below 30 or who had been injecting for no more than six years and tested them for hepatitis C and HIV.[1] Over 90% were in London. A year later 70% were retested. At the first point about 44% were infected with hepatitis C and 4% with HIV. Over the following year those previously negative had about a 4 in 10 chance of becoming infected with hepatitis C and for HIV a 3–4 in 100 chance. These rates of fresh infection in new and younger injectors suggest that "drug policy is failing to maintain historical levels of protection from bloodborne viruses among this high risk group." Across England and Wales the proportion of new (up to three years) injectors already positive for hepatitis C has increased from 8–9% in the last years of the '90s to 14–17% in 2001–2003 and in 2003 nearly 1% were positive for HIV, the highest figure since 1990.[2]

1 Judd A. et al. *Incidence of hepatitis C virus and HIV among new injecting drug users in London: prospective cohort study.* British Medical Journal: 2005, 330, p. 24–25. Download from www.bmj.com.

2 *Shooting up. Infections among injecting drug users in the United Kingdom 2003.* Health Protection Agency, 2004. Download from www.hpa.org.uk.

Transformation stories 2 AFTERCARE: TRY, TRY – AND TRY AGAIN

Through a series of inexpensive or cost-free steps each building on the other, researchers at the Salem Veterans' Affairs medical centre in Virginia transformed a poor aftercare attendance record into an excellent one. Both the initiatives and the methods used to assess them are well within the reach of many treatment agencies.

For its mainly alcohol-dependent, ex-military patients, the centre offers a 28-day residential or intensive non-residential rehabilitation programme run on cognitive-behavioural lines. To sustain sobriety, staff stressed the importance of attending weekly aftercare groups, but few patients did so and attendance was poor.

1 At first the centre tried randomly allocating 40 patients coming to the end of therapy either to normal procedures, or to a personalised introduction to the groups.[69] These patients could choose which aftercare group they wanted to attend and met the group leader, who explained why attendance was important, answered questions, and asked the patient to commit to at least eight meetings. The session ended with patients signing an 'aftercare contract' witnessed by the leader. Though non-attendance was an option, its wording was strongly weighted towards participation.[70] By signing it, patients acknowledged research indicating that aftercare tripled their chances of staying sober.

These procedures raised the proportion initiating aftercare from 40% to 70%, doubled the average number of sessions attended to three of the first eight, and meant that 35% versus 20% of patients were still in aftercare three months later.[71]

2 Next the service tried randomly allocating 41 patients to the innovations trialed at step 1, or to these plus reminders to attend and fulfil the aftercare contract.[70] The new procedures consisted of a mailed card to remind patients not just of the upcoming session (reinforced by an automated phone message) but of their attendance record and how far this lived up to the promises in their contract. Also, before the first session the group leader sent a handwritten letter saying they were pleased the client had joined them and that they looked forward to seeing them. Missed sessions were followed up with further letters and phone calls encouraging the client to return.

As a result, aftercare initiation increased from 70% to 100%, sessions attended doubled to over four out of eight, and 57% versus 35% patients were still in contact three months later.[71] The study also provided the first confirmation that improving aftercare attendance improved outcomes: over the five months after leaving the inpatient centre, the reminder group needed just five hospital readmissions, the control group 15, indicative of a significantly greater relapse rate.

Clients who'd received the reminders said these communicated the therapist's concern and engendered trust, while therapists found they provided an opportunity to help overcome any practical obstacles such as transport difficulties.

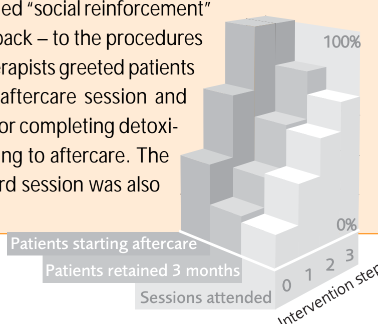
3 At 100%, initial attendance now could not be bettered, but still just half the first eight sessions were attended. To address this, the centre systematically added "social reinforcement" – public pats on the back – to the procedures trialed at step 2.[72] Therapists greeted patients attending their first aftercare session and congratulated them for completing detoxification and committing to aftercare. The milestone of their third session was also recognised as half way to the six which would earn them a certificate and a slot on a prominently displayed 'roll of honour'. Patients who attended all eight sessions were presented with a medallion.

Each milestone was recognised by presenting the individual to the group. This meant the reinforcers could not be applied to some individuals but not others, forcing the researchers to depart from a randomised research strategy. Instead they applied step 2 to 43 patients then after all these had finished aftercare, added social reinforcers for the next 38.

Social reinforcement patients attended on average nearly six of the first eight sessions compared to four without this public recognition, and 80% versus 40% remained in contact for at least three months.[71 72 73] Reinforcers were applied for eight weeks, but even after this attendance remained higher in the reinforced patients. For example, four to nine months later they attended four aftercare sessions versus one by other patients.[xi]

An attempt was made to follow up the first 20 patients from each of the groups six months after treatment had started to see if improved aftercare attendance had translated into improved outcomes.[73 xii] Compared to control patients, those whose attendance had been systematically reinforced recorded lower scores on a questionnaire measuring drinking and drink-related problems.[xiii] Additionally, 76% were abstinent from alcohol and drugs compared to 40% of the control group. They also tended to have fewer drug problems and, over the year after starting treatment, fewer hospital readmissions.

All these studies excluded participants who would have had difficulty getting to an aftercare centre due to distance, lack of transport or other commitments. Eliminating these practical barriers to attendance probably allowed the influence of what happens in treatment to show through so clearly. Because the centre served ex-military personnel there were also very few women



MM2 We know you've got other things to do

For a service with set hours, whether people can get there during opening hours is clearly critical. If attendance requirements are both inflexible and demanding, unstable patients and those living crisis-ridden lives are set up to fail, while patients who are working, looking after their family, or otherwise productively occupied, are forced to choose between treatment and maintaining these important props to recovery.

IMPOSSIBLE HOURS

These barriers seemed evident at an outpatient alcohol clinic in inner-city Chicago, where patients employed during its normal weekday opening hours were less likely to return after assessment than those who were employed in the evening or not at all.[6]

Unemployed clients also need time to deal with benefits claims, housing, family and other issues, why a New York day programme for crack using mothers found that flexibly adjusting attendance requirements improved retention without undermining the programme's effectiveness.[2]

Another US study randomly assigned unemployed methadone patients (most newly entering treatment) to a programme requiring attendance for therapy five hours a day, five days a week, or to one requiring attendance for just two hours a week.[46] After being told which they had been assigned to, 17 out of 307 patients did not return. All but one had been assigned to the more demanding programme.[47] This excess attrition was not compensated for by better outcomes in the more intensive programme.

In London a pilot methadone prescribing clinic recently opened at the Endell Street hostel for the homeless page 20 in this issue.[48] The clinic avoided unnecessary failures partly by allowing patients to pick up their prescriptions any time it was open, and partly by providing clinics at least every three days so that a missed session did not have to mean dropping out of treatment.

DAILY TRIP TO DRINK METHADONE

Patients like those at Endell Street seem unlikely to consistently attend an outside clinic daily at a fixed time in order to consume their methadone, but very few studies have assessed the impact this requirement has on access and retention. Those which have suggest it is negative.[viii]

A snippet of UK evidence derives from the NTORS study of treatment services across England. In preparation for the study, 'structured' methadone maintenance clinics were established which required on-site consumption. Aversion to this requirement was said to have accounted for a higher drop-out rate in NTORS' maintenance as opposed to metha-

done reduction programmes,[49] reversing the normal advantage of maintenance regimes.

In South Australia, being able to get one's prescription dispensed at a local pharmacy was associated with a much lower drop-out rate (by a factor of five) at methadone clinics in the decade from 1981.[53] This may have been partly because take-homes were granted to more cooperative patients, but clinic policies were probably also a factor. Those which required daily attendance forced some patients to travel very long distances and to devote much of their lives to obtaining their medication.

US evidence is stronger, coming from a trial which randomly allocated patients to on-site consumption every weekday or just twice a week.[50] Within each set, patients were also randomly allocated to 50 or 80mg of methadone a day. Regardless of the attendance requirement, on the higher dose about 80% were still in treatment six months later. But at the lower dose, retention at 80% was twice as high when patients could visit just twice a week.

In Italy a clinic tried to prepare patients on take-home doses for the advent of a law prohibiting this practice, a rare 'natural experiment' in forcing on-site consumption.[51] During the six-month lead-up, the drop-out rate was 19% compared to 3% the year before. Rather, it seems, than have their take-homes withdrawn, another 23% (compared to 4% the year before) underwent a planned detoxification from methadone. Fifteen of the 49 detoxified patients could be traced three years later: ten were back in treatment, five had died.[ix] Clinic staff commented, "having medication at home means being allowed to organize the everyday routine of life on the basis of his or her needs (work, family, leisure, etc) ... lack of this opportunity can have repercussions on compliance with treatment".[52]

SUPERVISED HEROIN HARD TO LIVE WITH

If attending daily for methadone can be a problem, having to do so two or three times a day to take heroin is even more onerous, counteracting the drug's attractions. The consequences have been documented in heroin prescribing trials in Switzerland and the Netherlands, both of which required on-site consumption.

The Swiss tempered the inconvenience by allowing patients to skip visits and take oral medication instead, an opportunity most took. Nevertheless, when the programme in Geneva was advertised in addiction treatment services, in seven months it attracted just 61 regular heroin users, suggesting a widespread preference for less demanding methadone regimes.[54] In the Swiss trials as a whole, retention was better than at methadone programmes, but still within a year of starting their treatment 30% of patients had left and within five years, two-thirds.[55 56] Despite successes in curbing illegal drug use and crime, not surprisingly, the heroin programmes did nothing to promote employment, if anything, the reverse.[57] As researchers commented, supervised consumption made "a complete reintegration into the workforce ... extremely difficult".

WHAT A HELPING HAND CONVEYS ABOUT ITS OWNER COULD BE AS IMPORTANT AS WHAT IT DOES FOR THE RECIPIENT

In the Netherlands, retention was actually slightly better among patients randomised to standard oral methadone regimes.[58] Many who left the heroin programme voluntarily or for medical reasons did so to return to methadone.[59]

TOO MUCH ATTENTION

Offenders in particular may be forced into counter-productively inflexible and intrusive attendance requirements. This seems to have been the major reason for widespread failure to complete drug treatment and testing orders in England and Wales, whilst the more flexible regime in Scotland (where offenders are not failed simply for missing appointments) has a far better record.[60] Non-completion is strongly linked to later recidivism,[61 62] probably the main reason why the reconviction rate was lower in Scotland.

TOO MANY HEARINGS IN DELAWARE

These issues have been most thoroughly explored at drug courts in Delaware.[63] In the first study, nearly 200 low-level offenders ordered into treatment were randomly assigned to mandatory fortnightly court hearings, or instead to be referred to the court when treatment staff thought this was necessary due to poor progress.[64]

The more rigid structure seemed to help problematic offenders (anti-social personalities or a history of drug treatment) comply with the court's requirements, but it did the opposite for the more conventional offenders. It did not curb their drug use as well as the flexible regime and unnecessarily blighted their futures by condemning more to fail and acquire a criminal record charts.[65] A suspected mechanism was the disruption it caused to employment and education.

Later these findings were partially replicated at two other Delaware drug courts in respect of relatively minor (misdemeanour) offenders[66] and more serious (felony) offenders.[67] In all these studies, the offenders were mainly young, employed men.

These findings came from offenders at least prepared to risk random allocation to fortnightly hearings. Even more revealing are the numbers (about half or more) who rejected this risk, perhaps rightly fearing that they would be more likely to fail than in the normal regime. Among those who did join the studies, 28% of the felony offenders assigned to fortnightly hearings dropped out. The researchers attributed this to the fact that the longer felony programme (at least six months and up to a year) interfered unacceptably with the offenders' abilities to maintain employment or education.

Similar findings emerged from a preliminary analysis of another US study where integrating intensive, long-term[x] group therapy in to the probation or parole supervision of high-risk, drug using offenders reduced re-arrest rates.[68] But moderate risk offenders did at least as well and possibly better left to follow through on treatment referrals in the usual way, even though this meant two-thirds did not enter treatment at all, and that those who did quickly left.

NOTES

i Other forms of practical help such as home visits and outreach instead relieve the load on the client to visit a service. Important as these are, this review largely lays them to one side to concentrate on what fixed-site services can do to encourage clients to attend.

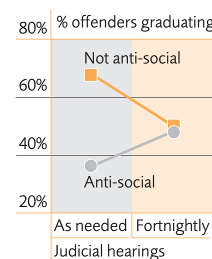
ii The main way of meeting transport costs at these services. Fewer provided vouchers.

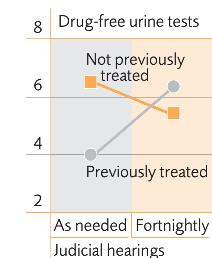
iii The apparently counterproductive effect of reimbursement at the drug-free clinics may also have been an artifact of which clinics offered to pay. DATOS's drug-free clinics ranged from intensive day programmes to weekly counselling services (Etheridge R.M. *et al.* "Treatment structure and program services in the Drug Abuse Treatment Outcome Study (DATOS)." *Psychology of Addictive Behaviors*: 1997, 11(4), p. 244–260). The most intensive were far less likely to retain patients for 90 days, perhaps because their programmes were shorter, or perhaps because of the greater burden they placed on patients. In an attempt to reduce the burden, these clinics may also have been the ones which offered to pay for transport. Such a mechanism would create a statistical link between paying and poor retention even though one did not cause the other.

iv Enhanced-programme patients were also given access to case management and extra therapy groups but partly due to resistance from patients and partly to resistance from external agencies, these were poorly implemented (reference 13). This and the fact that the greatest impact was seen in the first three months suggest that transport was the main factor. The impact of making free transport contingent on good attendance is impossible to gauge, but in the context of other studies, it seems likely that much of the effect was due to simply providing the help.

v Twice as many as took up the offer (available to all the women) of vouchers for free transport.

vi How the state selected the enhanced centres is unclear and the researchers further selected the biggest centres to study, which also tended to be well established and of good repute. The result might be visible in the fact that women did better at these centres, regardless of whether they used





In Delaware mandatory court hearings every two weeks helped anti-social offenders and those previously in treatment but were positively harmful to others.

the access enhancements or even whether they used more of the centre's services. Whether less competent outfits would have made good use of the enhancements remains an open question.

vii These figures probably underestimated the impact of keeping the family together. While waiting for their children to be admitted, a few women left the live-in regime, something which could normally have been avoided. Up to two children under 11 years of age were allowed to stay, yet on average the women had three, meaning that many must have remained separated from some of their youngsters.

viii The safety and anti-diversion arguments for supervised consumption are acknowledged but are not the focus of this review.

ix It seems possible that only patients in either of these categories could be traced.

x Three times a week for six months.

xi A small part of these differences were due to slightly greater initial attendance so cannot be attributed to social reinforcement, but after discounting this there remained a substantial effect.

xii 32 of the 40 were reinterviewed. These patients were also the source for the longer term retention data.

xiii Alcohol was the primary concern for two-thirds of the patients.

xiv Given how few in Pennsylvania received this help, it seems likely that their needs were extreme.

REFERENCES

1 Hser Y-I. *et al.* "Predicting drug treatment entry among treatment-seeking individuals." *Journal of Substance Abuse Treatment*: 1998, 15(3), p. 213–220.

2 McMurtrie C. *et al.* "A unique drug treatment program for pregnant and postpartum women in New York City: results of a pilot project, 1990–1995." *American Journal of Drug and Alcohol Abuse*: 1999, 25(4), p. 701–713.

3 Mollica R. *et al.* "'Vedette' study and 'Tracking' project; their integration and preliminary results." *Heroin Addiction and Related Clinical Problems*: 2003, 5(3), p. 19–34.

4 Stark M.J. *et al.* "'Hello, may we help you?' A study of attrition prevention at the time of the first phone contact with substance-abusing clients." *American Journal of Drug and Alcohol Abuse*: 1990, 16(1&2), p. 67–76.

5 Fehr B.J. *et al.* "'As soon as possible': an initial treatment engagement strategy." *Substance Abuse*: 1991, 12, p. 183–189.

6 Verinis J.S. "Characteristics of patients who continue with alcohol outpatient treatment." *International Journal of Addiction*: 1986, 21(1), p. 25–31.

7 Beardsley K. *et al.* "Distance traveled to outpatient drug treatment and client retention." *Journal of Substance Abuse Treatment*: 2003, 25(4), p. 279–285.

8 Prue D.M. *et al.* "An analysis of distance variables that affect aftercare attendance." *Community Mental Health Journal*: 1979, 15(2), p. 149–154.

9 Jacobson J.O. "Place and attrition from substance abuse treatment." *Journal of Drug Issues*: 2004, p. 23–50.

10 Fortney J.C. *et al.* "The effects of travel barriers and age on the utilization of alcoholism treatment aftercare." *American Journal of Drug and Alcohol Abuse*: 1995, 21(3), p. 391–406.

11 Friedmann P.D. *et al.* "Transportation and retention in outpatient drug abuse treatment programs." *Journal of Substance Abuse Treatment*: 2001, 21, p. 97–103.

12 Grella C.E. *et al.* "Predictors of retention in enhanced and standard methadone maintenance treatment for HIV risk reduction." *Journal of Drug Issues*: 1997, 27(2), p. 203–224.

13 Hasson A.L. *et al.* "Practical issues in the application of case management to substance abuse treatment." In: Siegal H.A. *et al, eds. Case management and substance abuse treatment: practice and experience.* Springer Publishing Co., 1996, p. 105–122.

14 Grella C.E. *et al.* "The effectiveness of the Los Angeles Enhanced Methadone Maintenance Project: reducing HIV risk among injection drug users." In: Tims F.M. *et al, eds. The effectiveness of innovative approaches in the treatment of drug abuse.* Greenwood Press, 1997, p. 17–32.

15 Comfort M. *et al.* "A search for strategies to engage women in substance abuse treatment." *Social Work in Health Care*: 2000, 31(4), p. 59–70.

16 Hser Y-I *et al.* "Matching clients' needs with drug treatment services." *Journal of Substance Abuse Treatment*: 1999, 16(4), p. 299–305.

17 Fiorentine R. *et al.* "Client engagement in drug treatment." *Journal of Substance Abuse Treatment*: 1999, 17(3), p. 199–206.

18 Fiorentine R. *et al.* "Drug treatment: explaining the gender paradox." *Substance Use & Misuse*: 1997, 32(6), p. 653–678.

19 Friedmann P.D. *et al.* "Medical and psychosocial services in drug abuse treatment: do stronger linkages promote client utilization?" Health *Services Research*: 2000, 35(2).

20 Umbricht-Schneiter A. *et al.* "Providing medical care to methadone clinic patients: referral vs on-site care." *American Journal of Public Health*: 1994, 84(2), p. 207–210.

21 UK government. *Tackling drugs. Changing lives.* Drug Strategy Progress Report 2004.

22 Audit Commission. *Drug misuse 2004.* 2004.

23 Marsh J.C. *et al.* "Increasing access and providing social; services to improve drug abuse treatment for women with children." *Addiction*: 2000, 95(8), p. 1237-1247.

24 Chutuape M.A. *et al.* "Methods for enhancing transition of substance dependent patients from inpatient to outpatient treatment." *Drug and Alcohol Dependence*: 2001, 61(2), p. 137–143.

25 Jones H.E. *et al.* "What if they do not want treatment?: lessons learned from intervention studies of non-treatment-seeking, drug-using pregnant women." *American Journal on Addictions*: 2004, 13(4), p. 342–357.

26 Dennis M. *et al.* "An experimental evaluation of recovery management checkups (RMC) for people with chronic substance use disorders." *Evaluation and Program Planning*: 2003, 26(3), p. 339–352.

27 Arfken C.L. *et al.* "Women are less likely to be admitted to substance abuse treatment within 30 days of assessment." *Journal of Psychoactive Drugs*: 2002, 34(1), p. 33–38.

28 Nelson-Zlupko L. *et al.* "Women in recovery: their perceptions of treatment effectiveness." *Journal of Substance Abuse Treatment*: 1996, 13(1), p. 51-59.

29 Brindis C. *et al.* "Options for recovery: promoting perinatal drug and alcohol recovery, child health and family stability." *Journal of Drug Issues*: 1997, 27(3), p. 607–624.

30 Kumpfer K.L. *et al.* "Family environmental and genetic influences on children's future chemical dependency." *J. Child Cont. Soc.*: 1985, 18(1-2), p. 49–91.

31 Stevens S. *et al.* "Women residents: expanding their role to increase treatment effectiveness in substance abuse programs." *International Journal of Addiction*: 1989, 24(5), p. 425–434.

32 Burns S. *Evaluation report SSX/96/11/BH/L: PHASE.* Sussex Drugs Prevention Team, 1997.

33 Gruber K.J. *et al.* "In-home continuing care services for substance use affected families." *Substance Use and Misuse*: 2004,39(9), p. 1379–1403.

34 Bennie C. "Reconsidering home detoxification for problem drinkers." 22nd Alcohol Epidemiology Symposium, Edinburgh, 1996. Cited in: Plant M. *Women and alcohol. Contemporary and historical perspectives.* Free Association Books, 1997.

35 Plant M. *Women and alcohol. Contemporary and historical perspectives.* Free Association Books, 1997.

36 Ashley O.S. *et al.* "Effectiveness of substance abuse treatment programming for women: a review." *American Journal of Drug and Alcohol Abuse*: 2003, 29(1), p. 19–53.

37 Elk R. *et al.* "Behavioral interventions: effective and adaptable for the treatment of pregnant and cocaine-dependent women." *Journal of Drug Issues*: 1997, 27(3), p. 625–658.

38 Carroll K.M. *et al.* "Improving treatment outcome in pregnant, methadone-maintained women". *American Journal on Addictions*: 1995, 4(1), p. 56–59.

39 Weisdorf T. *et al.* "Comparison of pregnancy-specific interventions to a traditional treatment program for cocaine-addicted pregnant women." *Journal of Substance Abuse Treatment*: 1999, 16(1), p. 39–45.

40 Pringle J.L. *et al.* "The role of wrap around services in retention and outcome in substance abuse treatment: findings from the Wrap Around Services Impact Study." *Addictive Disorders & Their Treatment*: 2002, 1(4), p. 109–118.

41 Wobie K. *et al.* "Women and children in residential treatment: outcomes for mothers and their infants." *Journal of Drug Issues*: 1997 27(3), p. 585–606.

42 Killeen T. *et al.* "Parental stress and child behavioral outcomes following substance abuse residential treatment." *Journal of Substance Abuse Treatment*: 2000, 19, p. 23–29.

43 Knight D.K. *et al.* "Where are the children? An examination of children's living arrangements when mothers enter residential drug treatment." *Journal of Drug Issues*: 2003, 33(2), p. 305–324.

44 Scott-Lennox J. *et al.* "The impact of women's family status on completion of substance abuse treatment." *Journal of Behavioral Health Services & Research*: 2000, 27(4), p. 366–379.

45 Hughes P.H. *et al.* "Retaining cocaine-abusing women in a therapeutic community: the effect of a child live-in program." *American Journal of Public Health*: 1995, 85(8), p. 1149–1152.

46 Avants S.K. *et al.* "Day treatment versus enhanced standard methadone services for opioid-dependent patients: a comparison of clinical efficacy and cost." *American Journal of Psychiatry*: 1999, 156(1), p. 27–33.

47 Avants S.K. *et al.* "When is less treatment better? The role of social anxiety in matching methadone patients to psychosocial treatments." *Journal of Consulting and Clinical Psychology*: 1998, 66(6), p. 924–931.

48 *South Camden Drug Services and St. Mungo's (Endell Street) HAZ Prescribing Pilot Evaluation.* St. Mungo's and Camden and Islington Mental Health and Social Care Trust, 2004.

49 Gossop M. *Findings from the National Methadone* (sic) *Treatment Outcomes Research Study.* Seminar, Centre for Research on Drugs and Health Behaviour, London, 25 April 1996. The higher drop out rate seen on methadone maintenance programmes as opposed to methadone reduction was attributed to client aversion to on-site consumption enforced by some of the methadone maintenance programmes.

50 Rhoades H.M. *et al.* "Retention, HIV risk, and illicit drug use during treatment: methadone does and visit frequency." *American Journal of Public Health*: 1998, 88, p. 34–39. 1

51 Pani P.P. *et al.* "Prohibition of take-home dosages: negative consequences on methadone maintenance treatment." *Drug and Alcohol Dependence*: 1996, 41, p. 81–84.

52 Pani P.P. *et al.* "Take home and compliance with methadone maintenance treatment." *Heroin Addiction and Related Clinical Problems*: 2000, 2(1), p. 33–38.

53 Gaughwin M. *et al.* "Correlates of retention on the South Australian methadone program 1981–91." *Australian and New Zealand Journal of Public Health*: 1998, 22(7), p. 771–776.

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54 Perneger T.V. *et al.* "Randomised trial of heroin maintenance programme for addicts who fail in conventional drug treatments." *British Medical Journal*: 1998, 317, p. 13–18.

55 Uchtenhagen A. *et al. Prescription of narcotics for heroin addicts. Main results of the Swiss National Cohort Study.* Karger, 1999.

56 Rehm J. *et al.* "Feasibility, safety and efficacy of injectable heroin prescription for refractory opioid addicts: a follow-up study." *Lancet*: 2001, 358, p. 1417–1420.

57 Güttinger F.P. *et al.* "Evaluating long-term effects of heroin-assisted treatment: the results of a 6-year follow-up." *European Addiction Research*: 2003, 9, p. 73–79.

58 Van den Brink W. *et al. Medical co-prescription of heroin: two randomized controlled trials.* Central Committee on the Treatment of Heroin Addicts, 2002.

59 Personal communication from Wim van den Brink, 2002.

60 "DTTOs: the Scottish way cuts the failure rate." *Drug and Alcohol Findings*: 2003, 9, p. 14.

61 McIvor G. *Reconviction following drug treatment and testing orders.* Scottish Executive Social Research, 2004.

62 Hough M. *et al. The impact of drug treatment and testing orders on offending: two-year reconviction results.* Home Office, 2003.

63 Marlowe D.B. "Integrating substance abuse treatment and criminal justice supervision." *Science & Practice Perspectives*: 2003, p. 4–14.

64 Marlowe D.B. *et al.* "Are judicial status hearings a key component of drug court? During-treatment data from a randomized trial." *Criminal Justice and Behavior*: 2003, 30 (2), p. 141–162.

65 Festinger D.S. *et al.* "Status hearings in drug court: when more is less and less is more." *Drug and Alcohol Dependence*: 2002, 68, p. 151–157.

66 Marlowe D. *et al.* "The role of judicial status hearings in drug court." *Offender Substance Abuse Report*: in press.

67 Marlowe D.B. *et al.* "The judge is a key component of drug court." *National Drug Court Institute Review*: [2003?], p. 1–34.

68 Thanner M.H. *et al.* "Responsivity: the value of providing intensive services to high-risk offenders." *Journal of Substance Abuse Treatment*: 2003, 24, p. 137–147.

69 Lash S.J. "Increasing participation in substance abuse aftercare treatment." *American Journal of Drug and Alcohol Abuse*: 1998, 24(1), p. 31–36.

70 Lash S.J. *et al.* "Increasing adherence to substance abuse aftercare group therapy." *Journal of Substance Abuse Treatment*: 1999, 16(1), p. 55–60.

71 Lash S. J. *Appendix A: results of prior CPR studies.* Personal communication, 2004.

72 Lash S.J. *et al.* "Social reinforcement of substance abuse aftercare group attendance." *Journal of Substance Abuse Treatment*: 2001, 20, p. 3–8.

73 Lash S.J. *et al.* "Social reinforcement of substance abuse treatment aftercare participation: impact on outcome." *Addictive Behaviors*: 2004, 29(2), p. 337–342.

74 Harrington R. *Automobile city? Transport and the making of twentieth-century Los Angeles.* Undated, 2003 or 2004.