Nugget 12.4

Addressing medical and welfare needs improves treatment retention and outcomes

Findings A US study supports the UK policy trend[1 2 3] towards services which address not just substance dependence but also medical, psychological, social, housing, and vocational needs.

The findings come from the National Treatment Improvement Evaluation Study which sampled agencies across the USA given federal funding to improve their services. The featured study focused on the 3255 patients[4] at methadone, residential or outpatient counselling programmes[5] who completed interviews at treatment entry (baseline), shortly after they left (exit), and about 11 months later (follow-up). At baseline patients were asked how important it was for them to be helped with mental health, medical, family (not childcare), housing, or vocational problems. At exit they were asked whether during treatment they had received relevant services. Nearly all expressed some needs so could be included in an analysis relating needs and services to changes in the peak frequency of drug use from the year before treatment to (roughly) the year after.

Receiving services matched to need was associated with greater reductions in illegal drug use generally[6] and use of the drug(s) in relation to which the patient had sought treatment. This was the case for each of the needs separately (except for mental health) and for the extent to which each individual's overall needs had been addressed. The strongest links were with housing and vocational help and among patients at residential services, where these particular needs were most likely to be addressed. Matching needs was linked to improved outcomes partly (but not entirely) via a link with increased retention. However, these associations were confined to the half of the patients with multiple needs across at least four out of the five domains.

In context Previously the same study (see Nugget 10.1) had established that at all but the shortest type of treatment programme, longer retention was associated with

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greater reductions in drug use.[7] The current study offers a partial explanation of differences in retention. Whether matching services to needs caused better retention and outcomes cannot be definitively established, but the study was able to exclude the possibility that pre-treatment motivation accounted for the findings or that staying longer simply gave more time to address needs. The most plausible explanation is that helping patients cope with multiple severe problems created a platform for them to engage in treatment and sustain their recovery, and perhaps also strengthened therapeutic relationships. Even stronger links might have emerged had the study been able to assess whether services actually helped resolve the targeted needs, or if a wider range of needs (such as childcare, transport, financial) had been assessed.

Previous work is generally supportive of the attempt to match the intensity and type of help to patients' needs, but studies are few and usually the impacts on substance use have been moderate. Research is strongest in regard to providing inpatient care and professional psychotherapy for patients with distinct but not disabling psychiatric problems who also have fewer 'recovery resources' in the form of employment opportunities and a supportive family. The relative prominence of research on psychiatric severity and psychotherapy may be a function of the comparative lack of investment in meeting patients' needs for housing and employment, which are also more difficult to engineer. Despite the difficulties, studies do suggest that providing such services improves outcomes in the targeted areas and also in respect of substance use problems.

Practice implications Given the multiply disadvantaged populations seen in addiction treatment, a rounded approach which addresses welfare, family, housing and vocational needs seems justified in its own right, but can also create a platform for a stronger and more lasting recovery from dependence. The logic of this argument has been recognised in recent UK national policy statements.[8 9 10] Research supports the case for targeting such help at patients with relatively severe problems across several areas of their life and especially those whose poor psychological resources preclude a self-generated return to stable housing, employment and relationships. Treatment services will need the skills to assess these needs, a role closer to social welfare case management than addiction treatment. Meeting these needs will then require strong links between treatment and other relevant services. Services may need to be provided at the treatment site or via active referral and follow through including escorting patients to the helping agency. National benchmarking which recognises the importance of this work would help services and commissioners make the case for the investment required.

Featured studies Friedmann P.D. *et al*. "The effect of matching comprehensive services to patients' needs on drug use improvement in addiction treatment." *Addiction*: 2004, 99, p. 962–972.

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Links Nugget **10.1** • *Can we help?* issue 12.

Appendix to Nugget 12.4

NB This appendix summarising some related studies is not nor is intended to be a comprehensive review of the literature but to be sufficient to support the statements made in the main text.

1. At local level a similar study of patients entering mainly non-residential counselling and therapy programmes in Los Angeles found that patients stayed longer when services they felt were important at treatment entry had been delivered.[11] The 171 patients had been referred by a central intake unit or in a minority of cases by researchers. Half were women. The main drugs they were experiencing problems with were cocaine, heroin, alcohol and various other hallucinogens and psychotropics. The analysis was based on their stated needs at treatment entry and their recollections six months later of whether these had been addressed. Taking into account gender, race, age, drug use severity and other factors, retention remained positively related to the proportion of needs which had been addressed. In respect of specific needs, retention was also significantly longer if vocational, housing, transport or childcare needs had been addressed but not in respect of addressing needs for legal or medical assistance, family counselling, parenting skills, or for cultural/ethnic sensitivity. For example, when vocational needs had been addressed client stayed on average 164 days, when they had not, 99 days. For housing the corresponding figures were 151 and 103 days. At follow-up six months later, clients whose needs had been addressed had improved more in respect of the targeted problems than those whose needs had not been met. In other words, the services provided through or by the treatment agency had been effective. Also, clients who had needed help finding housing or with childcare had made greater reductions in the severity of their drug problems if these needs had been addressed during treatment. The absence of a stronger relationship between met need and drug problem outcomes may have been because though meeting need increased retention, in this study retention was only weakly related to outcomes.

Despite widespread need, very few patients received help with the issues more distant from medical or addiction treatment such as job training, legal assistance and housing, suggesting that they were atypical patients or had attended atypical programmes. Conceivably addressing their needs encouraged or helped them to stay in treatment but could not fully redress the disadvantages or environmental circumstances which contributed to their drug problems. In the analysis of which factors had uniquely contributed to retention, while the overall proportion of met needs remained significant, the presence of unmet needs in specific areas such as vocational or housing did not, raising a question mark over whether meeting these specific needs was the key factor or whether instead it was the richness of service provision overall and the degree to which this was appropriately targeted to the patient's needs.

2. In the previous study the services actually had the desired impact on the targeted problems. Comparison with another similar study in the same city[12] of 356 clients at 26 outpatient services suggests that it is not (or not just) whether housing, employment and other problems are resolved, but whether the treatment agency played an effective part in this resolution which helps improve retention and

outcomes. However, there are a number of other possible explanations for the generally negative findings.

At least eight weeks in to treatment, clients were asked about the needs they had had on entering treatment and whether they had received help meeting their needs. Except for medical needs, patients were no more likely to have resolved their problems if they had been helped than if they had not, and whether these problems had been resolved or not or whether new needs had emerged was generally unrelated to retention in or completion of treatment or whether drugs had been used in the preceding month wither during treatment or at post-treatment follow-up. The lack of a relationship between problem resolution and retention or drug use outcomes could have been due to (compared to the previous and the featured study) the relatively low proportion of people who expressed a need for help in each of the domains, to the fact that patients were not interviewed until they had been in treatment for at least eight weeks meaning that early drop-out due to unmet needs could not be detected, or (in respect of outcomes) because drug use was recorded simply as abstinent or not and no other measures were taken of improvement in life circumstances or symptoms. Note too that in this study no attempt was made to relate service provision or the degree to which this matched the patient's needs to either retention or outcomes.

3. The benefits of addressing psychiatric problems, one of the domains investigated in the featured study, have been explored in Veterans Administration's addiction treatment services in Philadelphia. The work began with an observational study relating outcomes to the nature of the programmes and of the clients.[13] 879 patients who had stayed in treatment for at least at least five days[14] (the typical detoxification period) were interviewed and 85% were followed up six months later. Psychiatric severity scores on admission (number, duration, and intensity of psychiatric symptoms) were one of the few predictors of changes in the severity of problems relating to medical, alcohol, drug, employment, legal, family, or psychiatric issues. The higher psychiatric severity had been in treatment entry, the poorer the outcomes across four (drug addicts) or five (alcoholics) of these domains. A further analysis divided patients into those who began treatment relatively high, relatively low, or mid-range psychiatric severity. The analysis looked for factors related to outcomes across at least three of the seven domains measured. It found that patients with relatively high or relatively low psychiatric severity tended to register respectively either poor or good outcomes regardless of the type of programme to which they had been assigned. This was the case even when their psychiatric problems had been accompanied by problems in other areas including family, medical, legal and employment issues. However, outcomes for the 60% of patients with mid-range psychiatric severity did depend on the presence of these complicating factors and on whether they had been treated in programmes presumed to offer a greater opportunity to address them. One of the clearest patterns was that drug addicts or alcoholics with relatively severe employment and family problems did better in inpatient than outpatient programmes. These findings emerged even after any mediating effect of retention had been controlled out of the analysis and among an exclusively male set of patients. Comparison with a previous study in which psychotherapy had not created extra benefits suggested that

providing ancillary services on site and integrated with the main programme is essential if they are to be used by more than a small fraction of patients.[15]

4. A second study tested these finding as an allocation indicator using the same treatment programmes and a new sample of 130 alcohol- and 256 drug-dependent patients.[16] The primary matching variable was psychiatric severity. Low severity patients were generally problem free, mid severity had significant symptoms such as anxiety and depression but no recurrent history of these problems, high severity had pronounced symptoms and a recurrent history. Low-severity patients were generally considered matched if they had been allocated to outpatient programmes except when they had very severe employment or family problems. Mid-severity patients with relatively severe employment or family problems were considered matched to inpatient programmes. High severity patients were considered mismatched to all the programmes. For a variety of mainly administrative reasons, only just over half the patients could be matched as intended. Patients treated in their matched programme type were compared with those patients from the same sample who were not treated in a matched programme type. Treatment staff neither knew what the matching criteria were nor which patients were matched. Compared to their mismatched counterparts, among both those in drug and alcohol treatment, at discharge staff rated about 12–15% more matched patients as motivated for treatment. Matched patients also stayed slightly longer in treatment and were more likely to be 'favourably' discharged or less likely to be 'unfavourably' discharged. Six months after treatment entry, across the seven domains measured in the previous study matched patients recorded on average of 27% greater improvements. Only the measure of drinking outcomes failed to register a significant difference in either the drug addict or alcoholics samples. The relationship between matching ands better retention and outcomes was seen in both the alcohol- and drug-dependent samples and was fairly consistent across the treatment programmes. It was also apparent when limited to the low or mid-severity patients (average of 19% greater improvements at follow-up), who were the only ones the study could consider matched to any of the available programmes. As before, the conclusion was that patients with low psychiatric severity would almost always do well even if assigned to a low intensity outpatient programme, that high severity patients are not well served by any of the addiction treatment programmes and may require psychiatric care, and that patients whose mid-range psychiatric problems are complicated by employment and/or family problems generally do better in extended inpatient regimes. It seems that such patients lack the props to recovery (a satisfying home and working life and psychological stability) which other patients can call on and require tome and space for these to be developed. As in other studies which have found inpatient treatment differentially beneficial for severely affected patients, in this study the range of severity included in the study was not constricted and the follow-up rate was high.

5. The studies mentioned above observed service inputs rather than changing them to see what happens, making it difficult to be sure that outcomes were actually caused by matching needs to services. Other studies took this extra step. An early study at university-affiliated methadone programmes concluded that patients benefited from weekly cognitive behavioural or supportive-expressive therapy from professionally trained psychotherapists because these helped ameliorate widespread

psychiatric problems.[17] The benefits of providing one of these options as a supplement to drug counselling were evident in the immediate post-treatment period and in a follow-up five months later.[18]

The 150 male patients who completed study intake procedures had been in their current treatment for at least two weeks but not more than six months. They were randomly assigned to the alternative therapies for six months. 121 engaged with the therapies[19] and were included in the analysis of whom 110 were re-assessed a month after the therapies had ended. Higher scores at the start of the study on a composite measure of psychiatric severity were significantly related to poorer outcomes in relation to drug use, employment, legal status and psychiatric functioning.

A more detailed analysis attempted to identify which patients had benefited most[20] by dividing patients into high, low and mid severity using baseline psychiatric severity scores. As in the earlier studies, low severity patients improved substantially regardless of whether they had been offered extra psychotherapy. Mid severity patients also improved substantially but in employment and psychiatric domains, the gains were greater after professional psychotherapy. With respect to drug use, supportive-expressive therapy led to slightly worse outcomes overall and with respect to opiate use, and the reduction in stimulant use was actually greater after drug counselling alone. However, perhaps because these patients had all already been stabilised on methadone, drug use overall was low at the start of the study and the differences which emerged later are of questionable clinical significance.

The benefits of psychotherapy were more clear cut for the high severity patients who consistently improved more after professional psychotherapy, including a greater reduction in days of opiate use, which remained virtually unchanged when patients had received only drug counselling. The greater impact of psychotherapy could not be accounted for by the overall time spent in therapy nor by selection effects at the start of the study due to differential initial engagement. Moreover, clinical records showed that the two groups of patients with appreciable (mid or high) psychiatric severity had more drug positive urines under drug counselling alone and had required higher doses of methadone, typically a response to continuing problems. Psychotic patients were excluded from this study as were those with serious problems which would require them to move from the city within a year of entering the study. Depression was the main diagnosis for those with psychiatric problems.

6. Later the previous study was broadly replicated among patients selected for severe psychiatric symptoms attending three more typical methadone programmes.[21] These clearly provided a less stable and amenable platform for research and for additional service inputs than the clinics in the previous study. Clinic staff identified 300 to 350 newly admitted methadone maintenance patients who seemed to have persistent psychiatric symptoms of whom 172 could and would participate in a study involving an extra weekly counselling or therapy session. 123 were sufficiently severe on psychiatric measures taken by researchers to be included in the study and were randomly allocated in a 2:1 ratio to an extra therapy session a week for 24 weeks of either supportive expressive psychotherapy or extra drug counselling of the kind they were already receiving. As in the previous study, only patients who engaged with therapy (93) were included in the study. Of these, the analysis

included the 84 who completed baseline assessments and assessments one month and six months after the extra treatment had ended.

Clinical records of methadone doses and opiate positive urines indicated no extra benefit from psychotherapy but the psychotherapy patients did submit fewer cocaine positive urine tests. Scores on the Addiction Severity Index reflected broadly equivalent gains at the one-month follow-up but greater improvement or better maintenance of gains at the six month follow-up among the psychotherapy patients in their drug use, drinking, employment status, criminal activity, and psychiatric symptoms. On nearly every measure taken, by the final follow-up psychotherapy patients were doing better than those given drug counselling, though usually the differences were not large. Unfortunately the study did not test whether changes from baseline to six months were significantly greater in the psychotherapy patients.

The general impression is that both sets of patients benefited from the extra therapeutic inputs, but that after this had ended and any initial impacts on being on methadone had evened out, the patients given psychotherapy evidenced somewhat better psychiatric adjustment and a move towards a more conventional and law-abiding lifestyle. However, in some respects the effects were not as substantial as in the previous study and were not seen at the initial follow-up.

For several reasons the benefits of psychotherapy in this study should have been at least as clear cut as in the previous study. Like the high severity patients in the previous study, patients in this study both needed extra attention (due to psychiatric problems) and were presumably relatively motivated to receive it because they chose to participate in the study. On the psychiatric measures duplicated across the studies they were at least as severe as the high severity patients in the previous study and had greater room to demonstrate improvements because they were newly admitted. For example, at baseline they had used opiates on 9 to 10 days in the previous month compared to 5 to 6 days in the high severity patients in the earlier study; their starting cocaine use was also higher. The supportive expressive therapists were selected for their ability and willingness to work with addicted patients, not a process undertaken by the drug counsellors who were selected from among the clinics' existing counselling staff. It seemed too that there was greater continuity in the psychotherapeutic staff because two of three clinics had very high staff turnover.

However, other factors would have mitigated against the benefits of psychotherapy becoming apparent. Both groups of patients were offered an extra therapy session a week, intended to eliminate concerns that the earlier findings might have reflected the amount of therapeutic contact rather than its type. And while giving greater scope for improvement, the fact that patients had just started methadone maintenance means that any benefits for the extra therapy may have been 'swamped' by the benefits of starting on methadone, which are usually quickly apparent. What the impact of the selection process which whittled up to 350 patients down to 84 might have been is unclear. As intended it selected severe psychiatric sufferers but presumably these were also people motivated to get extra help and stable enough to be recontacted for follow-up and to attend all the research interviews.

7. In contrast to the methadone studies in Philadelphia, a national US attempt to refine drug-free treatments for cocaine addiction confounded expectations by

showing that well structured counselling approaches can better professionally delivered psychotherapies.[22] 487 patients were randomly assigned to different manual-guided treatments. All received weekly 12-step based group drug counselling provided over six months. For some this group counselling was the sole treatment. For others it was supplemented by one of three individual treatments: 12-step based drug counselling; cognitive psychotherapy; or supportive-expressive psychotherapy. Each individual treatment was provided over the same weekly or twice weekly schedule in the first six months then monthly for the next three months. The key questions were whether the psychotherapies improved on the (in the US context) more routine counselling approaches and whether they did so for particular types of clients. The answer to both questions was 'No'. Whether the measure was the frequency of cocaine use or the proportion of clients staying abstinent, over the year following the intensive six-month treatment phase, patients receiving combined individual and group counselling tended to fare better than those receiving either of the psychotherapies, which were no better than group drug counselling alone. This was the case even though on average patients stayed longer in psychotherapy than counselling and attended more sessions. For example, 38% of the individual/group drug counselling clients managed three months without cocaine compared to around 20% of the psychotherapy clients and 27% of those receiving just group counselling. Even among clients with relatively high levels of psychiatric symptoms there was no evidence that the psychotherapies were superior, and anti-social personalities responded no better to the cognitive therapy option than to any other. Though on some measures individual plus group counselling was better than group counselling alone, it was not significantly better at achieving sustained abstinence or reducing the number of days of cocaine use.

With respect to cocaine addiction, the negative findings of the study in regard to professional psychotherapy are consistent with those reported in a recent literature.[23] However, for several reasons[24] the study does not justify a definitive 'no better than counselling' verdict on psychotherapy. The pre-treatment orientation phase was 12-step based, lending the benefits of continuity to the counselling approaches (also 12-step based). Similarly the fact that the group counselling was 12-step based meant those who also received individual 12-step counselling were presented with a consistent therapeutic focus. One-on-one persistent encouragement to attend mutual aid groups in individual counselling sessions led to more sustained, regular and active participation in the groups,[25] possibly accounting for at least some of the added benefits of individual counselling. A therapy similar to the study's cognitive option (but more skills-based) was found superior to 12-step based treatment among US crack addicts.[26] However, in this case the clients had been encouraged to attend mutual aid groups compatible with the main therapy. This study also found that cognitive-behavioural therapy worked best with clients adept at abstract reasoning and a 12-step approach best for those less adept.

Also, clients may not have been severely affected enough to benefit from psychotherapy. The study's selection procedures excluded subjects with more severe psychiatric and drug abuse complications and the two-week orientation phase before subjects were allocated to treatments may have weeded out the more problematic, less motivated and more disturbed patients who may have differentially benefited from psychotherapy.

On the other hand, cocaine users like those in the study may be becoming the norm in treatment populations. As cocaine use spreads (as it has in the USA[27] and is now also in the UK[28]) it is likely that the increasing number of users in treatment[29] will be more psychologically 'normal' than in previous decades and will be less suited to approaches which assume psychopathology. That most of the improvements occurred in the first month supports the interpretation that for many clients *all* the treatments were more intensive and extensive than was required; most clients shortened their treatments by leaving prematurely but seem to have done as well as those who stayed longer.

8. The directors of four private drug and alcohol services in Philadelphia were asked to provide at least three professional vocational, family or psychiatric services to randomly selected clients with severe problems in these areas.[30] Other clients with such needs received standard treatment. Two of the services were inpatient and two outpatient programmes. All 94 adult patients in the study were employed and dependent on drugs, alcohol, or both. Treatment costs were covered by employer-provided insurance. Systematising responsiveness to need in this way improved treatment retention (outpatient only) and completion rates (to 93% from 81%) and six-month outcomes in the targeted areas, as well as reducing arrests and the need for further treatment. This was a particularly stringent test because there was nothing stopping the other clients also receiving these services (which were available from agency staff on-site) and many did, but to a lesser degree. However, the researchers cautioned against generalising their findings to other groups. The study patients were referred by an employee assistance program and thus probably differed from other groups in the amount of pressure they were under to enter treatment, as well as in aspects of their backgrounds.

9. In Los Angeles, 291 13–17-year-old probationers admitted to residential rehabilitation for drug problems after referral by the juvenile court completed a research interview three months later, nearly all those admitted to the seven centres included in the study.[31] They were asked whether they had needed and also whether they had received help in 11 areas including family problems, employment, literacy, emotional/behavioural difficulties, welfare services and benefits, legal problems, and coping with physical or sexual abuse. After accounting for other variables related to retention, the youngsters who felt they had more needs stayed longer, as did those who received comprehensive services addressing at least three more domains than they felt needed help with. In contrast, when the number of services received fell at least one domain short of the number needed, retention was poorer. All these relationships were statistically significant and substantial. The service provision relationships with retention remained when the analysis was confined to youngsters (87% of the sample) who had been at the centres for at least a month, helping to exclude the possibility that it was due to longer retention giving greater opportunity for service provision.

In this study the presumption was that if more services were received than were needed this indicated that the client's specified needs were being met, and that if fewer were provided, this meant that fewer of the specified needs were being met. However, there was no explicit measure of the degree to which service provision matched needs, so as well as or instead of demonstrating a relationship between needs-services matching and retention, the findings could demonstrate a

relationship between the richness of service provision (matched or not) and retention.

10. Several other studies have shown or implied a relationship between meeting clients' needs and outcomes without specifically addressing the issue of the extent to which services were matched to needs.[32] [33] [34] [35] [36] [37] [38] No attempt is made here to review such studies or the case management literature, which supports individualised matching of ancillary services to the patient's needs.[39]

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