Integrated psychological treatment for substance use and co-morbid anxiety or depression vs. treatment for substance use alone: a systematic review of the published literature.

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Most patients at drug and alcohol services suffer depression and/or anxiety, far too many and usually not severely enough to engage mental health services. Faced with this huge problem, should services offer special mental health therapies, or is substance-focused treatment sufficient?

Abstract The full text of the review is available free of charge by clicking on the title above. The issue it addressed is whether among patients suffering anxiety or depression, outcomes improve when substance use treatment is supplemented by therapies for those conditions. A search was conducted for studies of the treatment of adults with substance use disorders who also had symptoms of excessive depression or anxiety. Studies were sought which randomly allocated these patients to programmes focused solely on substance use, or to programmes which included elements also addressing depression or anxiety. Only studies testing psychosocial therapies were included. Ten such studies were found which assessed outcomes at the end of treatment or later, evenly split between depression and anxiety. All which assessed substance use outcomes reported the proportion of days patients had remained abstinent, generally as assessed six months after treatment started, so the review adopted this as its indicator of substance use outcomes.

The five studies concerned with depression involved just 223 patients. Three evaluated therapies for depression (or depression complicated by substance use) based on cognitive or behavioural principles, one featured interpersonal psychotherapy, and the other a booklet to help patients focus on what matters to them and accept situations they cannot change. Results were aggregated using meta-analytic techniques. Generally the aggregated results favoured (sometimes substantially) the combined treatments, but only in respect of abstinence were the differences statistically significant; details follow.
Four studies used the standard Hamilton Rating Scale for Depression which is completed by staff on the basis of the patient's responses. On this scale, depression was less severe after combined than substance-only treatment, but not significantly so, and results varied substantially between the studies. Results were similar across the four studies (including three of the previous four) which assessed depression using questionnaires filled in by the patients. Across the three studies which reported abstinence, after combined treatment, patients were abstinent on about 14% more days than after substance use treatment alone, a statistically significant difference. Substantially, but not significantly, more patients dropped out of the substance-only treatments.

For technical reasons, results from the five studies relating to anxiety were not aggregated in a meta-analysis. As part of the combined treatment option being tested, all five assigned patients to variants of cognitive-behavioural interventions specific to their anxiety-related complaints. Three studies found this reduced substance use more than treatment as usual, but in one an alternative therapy geared to preventing relapse to substance use produced slightly the best outcomes overall. In another study, accompanying cognitive-behavioural therapy for drinking problems with the same type of therapy for social anxiety actually reduced the impact on drinking. Just two of the five studies found the anxiety-related disorder responded better to a therapy geared to addressing it than to substance-only treatment.

The author concluded that his analysis consistently favoured combined treatments for depression and substance use, but cautioned that generally the results were not statistically significant, often varied between studies, studies featured different settings, types of interventions and criteria for depression, samples were small, in the largest study many patients could not be followed up, and other negative studies might have remained unpublished. Given these caveats, combining psychosocial therapies for depression with substance use treatment can only be considered promising rather than supported. Even this could not be said in respect of anxiety; there was little evidence that supplementing substance-focused treatment with psychosocial therapy for anxiety yields any significant benefit, and some that it could reduce the impact of substance use treatment.

**FINDINGS** It is important to bear in mind that this review and these comments concern mental ill-health which generally falls short of the severe mental illness dealt with in another Findings analysis.

This summary is expanded on under the subheadings which follow. Probably most patients at most British alcohol and drug treatment services suffer depression and/or anxiety, but not at levels or with complications warranting referral to mental health teams, meaning that it will often fall to substance use services to identify and respond to these problems. Based on the featured review and others, they may be reassured that patients often improve after usual substance-focused treatments, without services having to deploy specialist therapies, possibly because at least some of these emotional problems are generated by substance use and associated lifestyles.

But in the case of depression, it also seems likely that an appreciable number of patients would benefit substantially more from tackling this directly. Though there remains much uncertainty in the research, the prevalence of depression, and the potential for benefit, might be seen to justify training substance misuse treatment staff in relevant therapies. Since, for example, cognitive-behavioural approaches for depression are in principle similar to those for substance use, this step might not be such a big one in services.
which already have therapists trained in these principles. In England the recent government-funded expansion in the workforce offering cognitive-behavioural therapies (originating in a desire to tackle depression and anxiety) has created openings for staff such as those commonly employed in substance use treatment services to develop recognised basic competencies 'on the job'.

Guidelines internationally have in recent decades leaned towards simultaneously treating mental health and substance use problems. However, in the case of mild to moderate depression and anxiety, especially when patients have only experienced these while misusing drugs or alcohol, there is a case for waiting for a time to see if symptoms remit on the attainment of abstinence or controlled drug use, providing that sufficiently frequent and effective monitoring is in place. What seems broadly agreed is that patients at substance misuse services should routinely be screened for mental health problems, and that the less severe and worrying cases of depression and/or anxiety are most feasibly dealt with at those services, with support if need be from mental health teams.

About the featured review
The featured review analysed studies of fully integrated therapies addressing substance use, mental health and their inter-relationships, and treatments which at the same site and during the same time period included separate elements addressing substance use and mental health in parallel. With so few studies, finer distinctions would not have been meaningful, but potentially these ways of organising combined treatment have different consequences.

What were generally substantial aggregate gains associated with combined therapy for depression nevertheless usually failed to be statistically significant. In respect of relieving depression, this seems mainly to have been due to the single largest study. Unexpectedly, it found patients offered therapy for depression were more depressed at the end of treatment than patients simply treated for drinking problems. This finding dragged down the aggregate results, but was unreliable (data was missing for many of the patients) and a passing phase. Three and six months later the position was reversed; by then depression was less severe among patients treated for it.

If further studies produced results similar to those to date, these might well justify solidifying the review's "promising" verdict in to support for combined treatment versus usual addiction treatment. In contrast, it remains entirely unclear whether approaches aimed at depression offer any benefit compared, not to usual addiction treatment, but to the same type of approach targeted at substance use. In respect of co-morbid anxiety, only a major change of direction in the trend of findings to date could alter the 'no significant benefit' conclusion.

Other recent reviews
Other recent reviews (1 2 3) have also found psychosocial therapies for depression or anxiety in substance using patients no better than 'promising'. Generally the conclusions were that with a few exceptions, these have not been found to outperform usual addiction treatment, but also that this failure might simply reflect the lack of large, rigorous studies; details below.

The most positive verdict was that approaches based on motivational interviewing can strengthen engagement
with treatment which should (but has not yet been shown to) mean better substance use and mental health outcomes. Based on three studies, the same review argued that cognitive-behavioural approaches lead to modest but persisting improvements in substance use and/or depression. One study was included in the featured review, in another the cognitive-behavioural approach was focused on substance use and compared to supportive clinical management, and in a third it was aimed at depression, but the comparator was not cognitive-behavioural therapy for substance use. On the basis of these studies and the featured review, it seems that cognitive-behavioural therapies for substance use can benefit depressed substance users, just as they can benefit those who are not depressed, but it remains unclear whether versions aimed at depression offer any extra benefit.

A review focused on anxiety and substance use concluded that while patients improve after combined treatments, it remains unclear whether these are superior to other treatments. Sometimes, the review warned, addressing both problems in parallel seems to reduce the effectiveness of substance use treatments.

The featured review was concerned with psychosocial 'talking' therapies. An alternative or supplementary approach is to prescribe medications for depression or anxiety. These work as well with substance using patients as they do with other depressed or anxious patients (1 2 3). They have also been found to reduce substance use, but not always, and impacts have generally been minor, suggesting they are insufficient on their own to tackle both sorts of problems.

How common is depression or anxiety among substance use patients in Britain?

Elevated levels of depression and/or anxiety are the norm in British drug and alcohol treatment caseloads. In 2001–02 the COSMIC survey of statutory sector drug and alcohol teams in English cities found that 8 in 10 alcohol patients and just over two thirds at drug services suffered from these complaints, including respectively a third and a quarter with severe depression, and a third and a fifth with severe anxiety. Of the depressed patients, about a fifth were judged vulnerable enough to warrant referral to mental health teams, leaving the bulk of the problems to be addressed if at all by the substance misuse services or general medical services.

Three London boroughs were included in the COSMIC survey. In a different London borough, some form of psychiatric condition was identified by researchers in over 90% of alcohol and drug service clients. Of these, 79% and 43% respectively in alcohol and drug services suffered affective disorders including depression, and 82% and 57% anxiety.

How much do patients improve in Britain?

If usual addiction treatment can lead to improvements in anxiety and sometimes in depression as great as those from specialised therapies, the question arises, how great are those improvements, and how much scope is there to do better? In respect of mental wellbeing in general, two large recent studies found worthwhile improvements after substance use treatment, but also that patients remained in poor mental health, while another suggested that further improvements might have been held back by failures to identify depressed and anxious patients and to meet their generally greater needs; details below.

In 2006 in England the Drug Treatment Outcomes Research Study (DTORS) recruited patients seeking help from drug treatment services and documented their progress. Patients' psychological wellbeing when they started treatment was poor; three to five months later it had improved and slightly more so at about a year, but improvements were modest, may have been an artefact of drop-out from the study, and still left patients...
well below the UK average. Similar findings emerged from UKATT (UK Alcohol Treatment Trial), Britain’s largest alcohol treatment study. It recruited participants in England and Wales between 1999 and 2001 and supplemented usual treatment with psychosocial therapies focused on drinking. Once again, mental wellbeing improved significantly from a low base over the year of the follow-up, but patients remained in poor mental health compared to the general population.

The COSMIC survey of statutory sector drug and alcohol teams in English cities, which found that depression and/or anxiety were the norm among their clients, also revealed that these patients reported greater health and social care needs and more unmet needs than patients without mental health problems, even after eliminating needs related specifically to mental health. Mental health problems too were often not specifically managed. Among patients whose sole mental health problems were in the spectrum including depression or anxiety, nearly half had not attended any service in respect of their mental health over the past year, and about half the remainder had just seen their GPs. Four in ten had been prescribed antidepressants and just one in ten had been in contact with mental health services. A greater gap between needs and provision among depressed and anxious patients was also apparent when keyworkers reported which substance use treatment interventions their patients needed, and which they had received. Conceivably services did not make as much difference as they might have because they were unaware that patients had mental health problems. Half the patients revealed by research interviews to be abnormally anxious or depressed had not been identified as such by their keyworkers.

**Practice guidance**

UK guidance avoids recommending any particular therapeutic approach to co-occurring substance use and mental health problems, and sees depression and anxiety among problem substance users as generally being dealt with by their substance use treatment services; details below.

Guidance for England stresses the 'mainstreaming' of treatment for severely mentally ill substance users within mental health services, but specifically excludes from that advice "many people who require help with substance misuse [who] suffer from a common mental health problem such as depression or anxiety ... many of whom do not require specialist support for both mental health and substance misuse". This formula implies that except for particularly severe or vulnerable cases, drug and alcohol services are expected to cater for those of their patients who suffer depression or anxiety, with support if need be from mental health teams. In turn this means those services must develop relevant competencies and programmes and/or work with GPs if they are not to leave a high proportion of their clients under-served.

Corresponding guidance in Scotland also sees the response to severe mental illness complicated by substance use as being led by mental health services. When substance problems are severe, but mental health problems milder, substance misuse services are seen as taking the lead, a category which would include most depressed or anxious patients seen at substance use services.

The COSMIC survey team found that English drug and alcohol teams were providing mental health interventions to some of their patients, but that just as many had needs which were unmet, not fully assessed, or not even identified. They recommended that at a minimum, non-psychotic patients with depressive and/or anxiety disorders should be offered specialist psychiatric assessment and if appropriate, specialist intervention. Without effective management, they warned that these problems are likely to impede effective drug and alcohol treatment.

UK advice can be placed in the context of guidance internationally on treating affective (includes depression) and anxiety disorders among substance users. After analysing such guidance, analysts identified a shift in recommended approaches, from treating substance use problems before providing mental health care, to simultaneously treating...
both. This was they thought driven by findings that mental disorders usually precede substance use problems, suggesting these disorders are not simply a side effect of substance use, and by the unsuitability of short-term substance use treatments for the management of chronic mental illness. However, some authorities have argued for not initially addressing depression or anxiety in some cases. Details below.

Guidelines generally agreed that patients at substance use services should be screened to identify mental health problems, and that further assessment should reconstruct the history of both problems. This is partly to help identify whether one might be causing the other, a determination the guidelines agree should form part of the initial assessment. They also generally agree that friends and family should be contacted to obtain corroborating diagnostic information, and recommend some form of combined treatment addressing both conditions in at least a coordinated fashion. Unfortunately, the review also found that this recommendation, those relating to the sequencing of substance use and mental health treatment, and most others, rested solely on expert opinion rather than research which had tested their validity.

Given uncertainty about what best practice consists of, the risk of deterring patients or unnecessarily intruding on their lives through onerous multiple therapies, the evidence that sometimes treatment for anxiety can impede substance use treatment, and in the interests of the conservation of resources, the advice given by a team of authors from Australia was to try the least intrusive treatment first. They identified at least one assessment tool designed to distinguish between substance-induced and more lasting mental health disorders. For patients whose depression and/or anxiety problems have only occurred during substance use periods, they recommended a short period of systematic monitoring to see if these problems remit when substance use is controlled. If not, or when immediate mental health treatment does seem indicated, they suggest starting with the least intrusive therapy likely to succeed, monitoring patient progress, and adjusting the therapy in the light of their progress. Their recommendations are of course contingent on the service frequently and effectively monitoring how patients respond to treatment.

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