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## ▶ Randomized controlled trial of cognitive-behavioural therapy for coexisting depression and alcohol problems: short-term outcome.



Baker A.L., Kavanagh D.J., Kay-Lambkin F. et al. Request reprint Addiction: 2009, 105, p. 87–99.

Australian study provides the first evidence that integrated treatment may be superior to alcohol- or depression-focused treatment for depressed heavy drinkers, but the lack of extra benefit in respect of depression and gender differences suggests a more complicated picture.

**Summary** Depression is common among heavy drinkers and particularly so among those who seek treatment. The featured study from Australia was the first with a large sample to test whether such patients respond best to treatments with an integrated approach to both drinking and depression, or whether they do just as well in similar approaches which instead focus on either drinking or depression. The yardstick against which all these 10-session interventions were compared and which they were expected to better was a single-session brief intervention.

Patients were mainly recruited via media publicity, though some were referred by other services. From the applicants, the study selected adults with elevated scores on a depression questionnaire who were drinking at a hazardous level. Of 478 who met these and other criteria, 194 (41%) chose not join the study or did not turn up for later assessments, leaving 284 to be randomly allocated to the four interventions. On average they were severely and chronically depressed and over half were taking antidepressants, they were drinking 620gm alcohol per week or 78 UK units, their maximum intake in a single day was 173gm or nearly 22 UK units, and they scored 26 on the AUDIT screening test, indicative of dependence on alcohol.

All the interventions they were allocated to adopted motivational interviewing as their therapeutic style, were delivered one-to-one, and started with the same 90-minute

session addressing both drinking and depression in an integrated manner. During this patients were given feedback on the preceding baseline assessments of their problems, a 'case formulation' was developed to help the client understand the origins of their problems in the interaction between depression and drinking and why these have continued to affect their lives, they were informed about depression and hazardous alcohol use, helped to plan behaviour change, and offered self-help materials.

For 70 patients, this was where the therapy ended. All the others were offered a further nine one-hour sessions focused either on depression, drinking, or both – the 'integrated' option. Delivered throughout in a motivational interviewing style and using associated techniques, all these options deployed elements from cognitive-behavioural and mindfulness therapies. Sessions started with a review of the previous week including homework completion, a suicide risk assessment, and negotiating the session's agenda. Following a manual, therapists worked through topics such how to monitor one's mood, craving, and thoughts, being mindful during various activities, development of change and emergency plans, coping with thoughts or cravings, problem solving, becoming aware of counterproductive beliefs and ways of seeing the world, assertiveness or alcohol refusal skills, and relapse prevention techniques. Integrated sessions addressed the way depression and drinking interact as well as dealing with these issues in parallel. About 85% of patients attended at least one session (for the brief intervention patients, their sole one) and on average those offered 10 sessions attended nearly six.

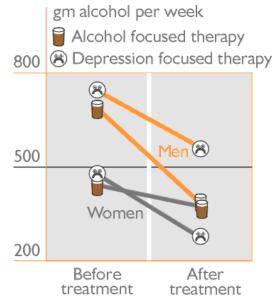
## Main findings

The featured report is based on changes in drinking, depression and how well 238 (84% of the starting sample) patients were coping with their social, occupational, and emotional life when interviewed on average 18 weeks after the initial assessment. Interviews were conducted mainly over the phone by staff 'blinded' to the therapy patients had been allocated to.

It was expected that the 10-session interventions would curb drinking and relieve depression more effectively than a single session. In respect of drinking, this was fairly consistently the case. Average drinks per week were reduced by an extra 121gm alcohol or 15 UK units, and the average amount drank in a single day ('bingeing') too was reduced by much more, in both cases mainly due to the superior performance of the options which included or focused on alcohol rather than the one which focused solely on depression. Similarly with the average number of days patient drank in a week which also fell much more in the longer treatments, though here the integrated option was most clearly preferable and significantly so in relation to the other longer treatments. But contrary to expectations, the longer treatments did not confer extra benefits in respect of depression, and the same was true of how well patients were coping with life. In other words, extended treatment focused on drinking did indeed help patients curb their drinking more than a single session, but extending treatment in whatever form did not further improve psychological health as measured by the study.

The next issue was whether integrating treatment of depression and problem drinking was more effective than either focus on its own when treatment duration (10 sessions) and approach were otherwise similar. Generally this was not the case. Of the four measures of drinking, just one was reduced more among the integrated option patients; they drank on nearly two fewer days a week compared to just under one day fewer after

single-track approaches. Depression too improved more in the integrated option. The lack of overall impact on general life functioning masked the different reactions of the men and the women, the former reacting better to single-track approaches, the latter to the integrated option. This was itself largely due to different reactions to the alcohol-focused option. This left men functioning better than after the depression-focused option, but women functioning worse, a statistically significant gender 'matching' effect.



Finally the researchers understandably expected depression-focused treatment to have the greatest beneficial impact on depression, and alcohol-focused treatment on drinking. But across the entire caseload, this was not the case. On none of the measures of drinking or mental health and functioning was one preferable to the other. Again this masked the different reactions of the men and the women. As noted above, men's functioning improved more when the focus was on drinking, women more when the focus was on depression. The same gender pattern true of drinking by chart. When this was the therapy's focus, men reduced their weekly drinking by 302gm or nearly 40 UK units compared to just 180gm when depression was the focus, a reflection of a similarly clearcut pattern in respect of average drinks per day. But for the women, a therapy not focused on drinking at all but on depression actually cut their drinking substantially more – a 202gm or 25 UK unit cut versus just 68gm or nearly 9 UK units. Again this reflected a similarly clear-cut pattern in respect of average drinks per day. Unexpectedly, neither for men not or women nor for the sample overall did depression-focused treatment relieve depression more effectively than focusing on drinking.

## The authors' conclusions

This study provides the first evidence that integrated treatment may be superior to single-focused treatment for co-existing depression and drinking problems, but the lack of extra benefit in respect of depression and gender differences in response to alcohol- versus depression-focused interventions suggests a more complicated picture.

As expected, longer therapies helped patients curb their drinking more than brief intervention, but there was no extra benefit in respect of depression or functioning. Of the longer therapies, as expected, addressing the interaction between depression and drinking in the integrated option did more to relieve depression (and in women to improve functioning) and to limit the days per week on which patients drank, but not

their average or maximum intake. Perhaps this option helped stop depression triggering drinking, but once drinking had started, did not curb its intensity. In respect of drinking and life functioning, there was also a clear-cut pattern of men responding better to a focus on drinking better than a focus on depression, while for women the reverse was the case. Perhaps depressed, heavy drinking women accord greater priority to depression, while men find an alcohol focus more acceptable or easier.

The authors tentatively suggested that if extended integrated therapy is available, it be considered the treatment of choice for both men and women. Otherwise treatment may start with a brief integrated session incorporating a comprehensive case formulation and motivational interviewing. For those who continue to drink excessively, an alcohol-focused intervention could perhaps follow for men and a depression-focused intervention for women.

verdict from other research may have been due to differential impacts on men and women cancelling each other out – that it *does* matter and quite substantially whether (in this case) therapy is focused on drinking or on depression, but matters differently for men and women. The pattern of the findings seems comprehensible in terms of Australian drinking culture, which might lead some men to drink very heavily without this being due to any individual pathology. If they are also depressed this is not necessarily the main cause of their drinking, and may be a secondary feature caused by excessive drinking. Women who the culture does not encourage to drink heavily are more likely to do so in response to an individual problem such as depression. Also women may feel more comfortable with a focus on their emotions rather than on what for them is likely to be a shame-inducing and non-feminine reliance on drink, while for men heavy drinking is not so unacceptable and the 'weakness' of depression may be harder to face; tackling this indirectly via drinking may be the preferable route.

However, the attractive 'makes sense' nature of the findings must be balanced against the limitations of the evidence. This is just a single study and it seems that a test for the interaction between therapy focus and sex was not planned in advance, meaning that the findings can only be considered suggestive of a hypothesis to be tested in a study designed from the outset for this purpose. Of the 18 tests of which type of treatment worked best, 13 produced non-significant differences, meaning that those which were significant stand a heightened chance of having been found purely by chance. Also these short-term findings were assessed when a few (14%) of the patients were still in the longer treatments, and were asked to look back over periods when more would have still been in therapy. Such findings might not persist to the longer planned follow-ups. If they do not, they would still be important indications of a matching effect (in this case of sex to therapy focus) which might be sustained by longer therapy or booster sessions. There is also the common limitation that the research therapists were supported by what in normal practice would often be an unavailable intensity of supervision and feedback. Another common limitation to research is the selected nature of the sample. In this case, 41% of the people who fit the study's profile chose not join it or did not turn up for later assessments. How those who did participate reacted might not be representative of how all depressed heavy drinkers would react outside a research context. Also, while they were on average drinking very heavily, it is not clear how many would have sought help for this problem if they had not seen the study's ads, or how representative they were of

depressed patients in a normally recruited alcohol service caseload.

The author's conclusion that integrated treatment is preferable is supported by a review of studies which randomly allocated heavy drinking and depressed (or anxious) patients to programmes focused solely on substance use, or to programmes which included elements also addressing depression or anxiety. In respect of depression, results were aggregated using meta-analytic techniques. Generally on both substance use and symptoms of depression, the aggregated results favoured (sometimes substantially) the integrated treatments, but only in respect of abstinence were the differences statistically significant. Also substantially more patients dropped out of the substance-only treatments.

Whether extended treatment for drinking confers any extra benefit over a brief intervention has been a bone of contention for many years. Several influential British studies have suggested that brief advice is generally just as effective, but research which has directly compared brief and longer interventions has usually been limited to less problematic patients and often those not seeking treatment, but identified by screening programmes. A review of studies of the brief treatment of substance use combined with mental health problems found that these approaches often had no greater impact than assessment alone, echoing the minor improvements seen in the featured study after the single session. However, the body of evidence was so varied that no one combination of conditions could be considered to have been well investigated. This study helps further close that gap in the evidence, but as with many studies, it is unclear whether in the normal course of events the patients' drinking problems would have driven them to seek help from a specialist alcohol service. Another approach is to look at results from studies of treatment-seeking patients overall whether or not these directly compared brief and longer interventions. Here the indications from the most relevant assessment are that brief motivational counselling for alcohol problems is less effective than more usual treatments among people actually seeking treatment.

Though these results were not tested, the featured study enables a comparison between outcomes from a brief integrated approach based on motivational interviewing and a longer integrated therapy. Taking drinks per week as a indication of hazardous drinking, this fell by 108gm or nearly 16 UK units after the brief intervention but by 316gm or 39 UK units after the longer one, and this pattern held for both men and women. Depression too remitted more but only slightly after the longer option.

Given these and related findings, the author's assessment that extended integrated treatment is the preferable option for depressed heavy drinkers seems supported, if by a narrow evidence base, though the men among the patients would do if anything do better with a focus on alcohol instead of either brief or a longer combined drinking-depression therapy. While the division here is in terms of gender, it presumably derives from psychological and social factors which are associated with gender but not determined by it. Men with a typically female relationship with their drinking and depression could be expected to also benefit more from depression-focused or integrated treatment, while women with a typically male relationship with their drinking and depression could be expected to benefit most from alcohol-focused treatment. In this way the findings could pave the way for more nuanced matching of patients to therapies.

Guidelines issued on behalf of Britain's National Institute for Health and Clinical

Excellence (NICE) take a different line to those of the featured study's authors.

Commenting that for most alcohol dependent patients depression lifts after a few weeks abstinent, they recommend that the first three to four weeks' treatment focus on drinking and then treatment be considered for any persisting mental health problems. The featured study suggests this is a suitable option for most men but would give many depressed female drinkers a suboptimal initial treatment. The guidelines did however recommend cognitive-behavioural approaches with motivational elements, preferably in a couples format where appropriate, but if not in the one-to-one format tested in the featured study.

Thanks for their comments on this entry to Luke Mitcheson of the South London and Maudsley NHS Foundation Trust. Other comments on this draft entry are awaited. Commentators bear no responsibility for the text including the interpretations and any remaining errors.

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