

DRUG ALCOHOL FINDINGS *Review analysis*

This entry is our analysis of a review or synthesis of research findings considered particularly relevant to improving outcomes from drug or alcohol interventions in the UK. The original review was not published by Findings; click [Title](#) to order a copy. [Links](#) to other documents. [Hover over](#) for notes. [Click to](#) highlight passage referred to. Unfold extra text . The Summary conveys the findings and views expressed in the review. Below is a commentary from Drug and Alcohol Findings.

Send email for updates

[SEND](#) [About updates](#)

[▶ Title and link for copying](#) [▶ Comment/query to editor](#) [▶ Tweet](#)

▶ **Psychological and psychosocial interventions for cannabis cessation in adults: a systematic review short report.**

Cooper K., Chatters R., Kaltenthaler E. et al.
Health Technology Assessment: 2015, 19(56).

DOWNLOAD PDF
for saving to
your computer

Conclusions supportive of cognitive-behavioural therapy for problem cannabis use from this authoritative UK assessment seem to conflict with earlier UK guidelines, though both query whether extended cognitive-behavioural therapy offers added value compared to briefer approaches.

SUMMARY The featured review comes from the Health Technology Assessment programme, a workstream within the [National Institute for Health Research](#) funded through the UK Department of Health. The programme aims to produce high-quality research information on the effectiveness, costs and broader impact of health-related interventions for those who use, manage and provide care in the UK National Health Service. Its reports inform guidance from the UK National Institute for Health and Care Excellence (NICE).

The featured Health Technology Assessment aimed to systematically review the evidence for the clinical effectiveness of psychological and psychosocial interventions for cannabis cessation in adults who use cannabis regularly. The review was confined to studies reported in English which had randomly allocated patients to one of these interventions versus to an alternative approach or to a no-treatment **control** group. Studies involving users of a range of drugs were included if they reported cannabis-related outcomes for the subgroup of regular cannabis users. Studies of medication-based treatments, or which compared these treatments to psychological and psychosocial interventions, were not included. Neither were studies based in the criminal justice system or in inpatient or emergency department settings. Due to differences between the studies, it was decided not to attempt to merge their results in a **meta-analysis**.

A search found 33 relevant studies, of which 13 were conducted in the USA and seven in Australia. Patients averaged 29 years of age.

Main findings

Studies were divided in to those whose participants were drawn from the general population of cannabis users, versus samples drawn from people known to suffer from psychiatric conditions.

General population studies

Twenty-six studies randomly allocated in total 7643 participants drawn from the general population of cannabis users. Most studies recruited participants through advertisements, though eight also or instead recruited patients referred for treatment.

Six of these studies compared outcomes for participants allocated immediately to **cognitive-behavioural therapies** versus those who had to wait for treatment. In all five to provide this data, after treatment patients offered therapy were significantly better and/or had improved significantly more on most outcomes (cannabis use, severity of dependence, cannabis problems).

Four studies compared cognitive-behavioural therapies spanning six to 14 sessions against up to four sessions of shorter therapies based on **motivational interviewing**. Results were mixed. Two studies found the longer therapies generally led to better outcomes after treatment and nine to 16 months after the trials started, but two others found few differences.

One small study found that 16 sessions of supportive-expressive dynamic psychotherapy improved post-treatment abstinence rates and symptom severity significantly more than one session of motivational interviewing. No significant differences in degrees of improvement were found in a study which compared 10 sessions each of cognitive-behavioural therapy and a social support group, nor in another which compared nine sessions each of cognitive-behavioural therapy and **case management**.

Three studies (one each) assessed cognitive-behavioural therapy delivered via telephone or internet, or internet-delivered counselling. All found significant improvements relative to participants waiting for treatment or offered an education-only option.

Ten general population studies compared the impacts of brief therapies based on motivational interviewing lasting one or two sessions with having to wait for treatment or only being assessed.

Motivational interviewing led to significantly better outcomes on some measures but not others. Similar



Key points

From summary and commentary

The featured review offers an authoritative assessment of the main treatment approaches for cannabis use, now the dominant drug problem in the UK among patients new to treatment.

Based on limited evidence, it concluded that cognitive-behavioural therapy and motivational interviewing improved cannabis use outcomes among the probably highly motivated users who volunteered for randomised trials.

Cognitive-behavioural therapies may be more effective than briefer motivational interviewing interventions, and combining them with contingency management may enhance long-term outcomes.

Results of cognitive-behavioural therapies among psychiatric populations were less promising.

Motivational interviewing led to significantly better outcomes on some measures but not others. Similar results were found in three studies which compared brief motivational interviewing against education-only options.

Five general population studies assessed **contingency management** programmes which offered rewards for abstinence in the form of vouchers for goods or services. In all three studies with relevant data, on some outcomes assessed during and immediately after treatment, both contingency management alone or with cognitive-behavioural therapy produced better results than cognitive-behavioural therapy alone or a programme based on motivational interviewing. However, at later follow-ups 14–15 months after the trials started, positive results were maintained for cognitive-behavioural therapy plus vouchers but less so for vouchers alone.

Psychiatric population studies

Seven studies with altogether 525 participants assessed cannabis users with psychiatric conditions including schizophrenia, psychosis or bipolar disorder (two studies), schizophrenia spectrum diagnosis (one study), psychosis (two studies) or major depression (two studies). All the studies included patients referred for treatment; three also recruited via advertisements.

Four studies compared 'treatment as usual' with this plus cognitive-behavioural therapies. Patients improved little overall, and there were few significant differences between the treatments on cannabis-related outcomes immediately after treatment, and none 10–12 months after the trials started. Two studies reported no significant outcome differences between different types of therapies lasting 10 sessions: one compared cognitive-behavioural therapy, computer-delivered cognitive-behavioural therapy, and person-centred therapy; the other, cognitive-behavioural therapy and psychoeducation. On one outcome only (daily cannabis use) a year after initial assessments, a further study reported extra improvements after 10 sessions of cognitive-behavioural therapy or computer-delivered cognitive-behavioural therapy versus a single session of motivational interviewing.

Do the number of sessions make a difference?

Longer courses of cognitive-behavioural therapy appeared somewhat more effective than shorter courses of motivational interviewing, but results were mixed and this finding is not conclusive. It was based partly on four studies directly comparing six to 14 sessions of cognitive-behavioural therapy with one to four sessions of motivational interviewing, two of which favoured cognitive-behavioural therapy while the other two found no differences. Also, compared with having to wait for treatment, studies of four to 14 sessions of cognitive-behavioural therapies found slightly greater positive effects than studies of one or two sessions of motivational interviewing. However, compared to having to wait for treatment, among studies of cognitive-behavioural therapy no clear advantage was associated with longer therapies. The same was the case among studies of motivational interviewing.

Any advantages of cognitive-behavioural therapies over motivational interviewing could have been due to treatment content, number of sessions, or both.

Group or individual treatment?

Individual treatments were assessed by 27 studies, while three provided group treatments, and two compared group with individual treatments. Based on extremely limited data, there seemed a slight advantage for the individual format.

Does cannabis use severity make a difference?

Studies in which participants started the trial with relatively low levels of cannabis use appeared slightly less likely to find significant differences between treatments than studies of more frequent users, but this tendency was not substantial or conclusive.

The authors' conclusions

Differences between the studies in interventions, comparators, outcomes and participants, and a high risk of bias, mean conclusions should be interpreted with caution. Based on the available evidence, courses of cognitive-behavioural therapy and (to a lesser extent) one or two sessions of motivational interviewing improved outcomes among cannabis users who volunteered to join the studies, usually in response to advertisements. Such studies may recruit populations relatively highly motivated to reduce their cannabis use, and their results may not generalise to all cannabis users.

There was some evidence that cognitive-behavioural therapies spanning six to 14 sessions may be more effective than briefer interventions based on motivational interviewing, though results were mixed. Contingency management may also enhance long-term outcomes in combination with cognitive-behavioural therapy. Results of cognitive-behavioural therapy for cannabis cessation in psychiatric populations were less promising, but may have been obscured because comparison patients were offered usual treatments.

FINDINGS COMMENTARY Due largely to trends in England, by 2013 in the UK cannabis was the primary drug problem for about half the patients new to drug treatment, overtaking opioid drugs like heroin [▶ chart right](#). How to treat these patients has become a priority issue for British services. With no recognised medication-based treatment, the featured review offers an authoritative steer on what works best.

The review related its conclusions to [guidance](#) from Britain's National Institute for Health and Care Excellence (NICE) that cognitive-behavioural therapy should not routinely be offered for cannabis use problems, and to [clinical guidelines](#) on treating drug problems published by the UK government, which say brief motivational interventions may be considered in less severely dependent cases, while more heavily dependent users may require structured treatment with keyworking.

After the USA, Australia was the main source of the studies in the review, and its official verdict on their implications appears to differ from that of the UK.

There [government-funded guidance](#) has recognised that many problem cannabis users do not volunteer for treatment and will not accept demanding treatments. It recommends 'stepped care', starting for example with a brief motivational intervention, and if that fails, stepping up to more extensive therapy, among which it says cognitive-behavioural therapies are best evidenced, and then if needed to a more comprehensive treatment plan.

The apparent contradictions have much to do with whether the focus was on the absolute degree of improvement among patients offered cognitive-behavioural therapies – giving rise to positive assessments – or on whether this is *greater* than among those offered alternative approaches. Since it rarely is, these assessments tend to be negative. For example, seemingly contrary to [NICE guidance](#) counselling against cognitive-behavioural therapies, among non-psychiatric caseloads the featured review suggested these therapies *were* effective for routine treatment of problem cannabis use, but it was unclear how much more effective than briefer interventions. In fact, the analyses on which NICE's verdict was based did not show that cognitive-behavioural therapy was *ineffective*, just that it was not convincingly *more* effective than other well structured therapies. That too was the broad verdict in a [review](#) of cognitive-behavioural therapies for substance use problems in general. It found that overall the advantage conferred by cognitive-behavioural therapies over alternative therapies was minor, despite these [alternatives](#) often seeming weak and/or not designed to be therapeutic.

Some reasons to offer longer therapies

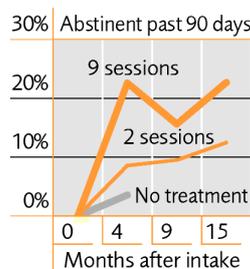
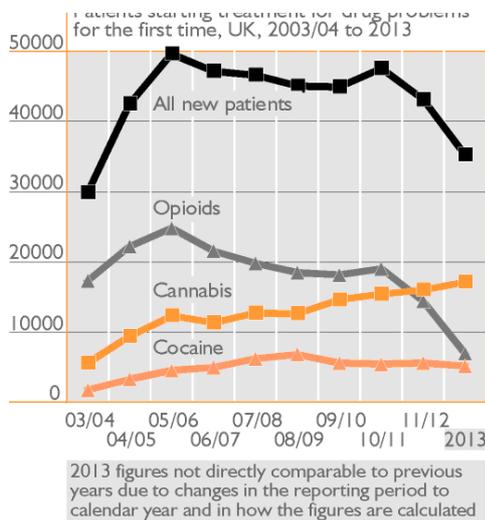
Though NICE and the featured review doubt the added value of full courses of cognitive-behavioural therapy, two studies included in the review did offer reasons to make these treatments available. Of the two, only a US study convincingly demonstrated their advantages over briefer therapies, and generally these advantages were of moderate magnitude. The second study from Australia suggested that even if consumption was not significantly affected, longer cognitive-behavioural therapies might further reduce related problems, including dependence. Details follow.

The [most convincing study](#) came from the USA. Mainly via ads, it recruited 450 patients (some allocated to a waiting list) who on average each day used cannabis three or four times and were intoxicated for at least six hours. Over 9 in 10 saw themselves as dependent. Most had been using heavily all their adult lives. Added value came from supplementing two motivational enhancement sessions with a further seven sessions focused on cognitive-behavioural anti-relapse skills, whilst also addressing issues such as housing, transport and childcare which might impede progress. The nine-month follow-up reflected a time when both groups were out of treatment. At this time the brief therapy group had been using on average about six days in every ten. Those offered longer therapy had been using on just over four days in ten, and they had experienced greater reductions in symptoms of dependence and abuse. Though attenuated, the extra reduction in days of cannabis use persisted to the 15-month follow-up, when in addition nearly twice as many participants had sustained abstinence over the past three months after the longer therapy [▶ chart above right](#).

The [second study](#) from Australia compared six one-hour sessions of cognitive-behavioural therapy with a single session lasting 90 minutes. The 229 participants (some allocated to a waiting list) recruited via ads had been using cannabis at least weekly for on average 14 years. Most were daily or near-daily users, typically consuming eight 'waterpipes' a day, the most common way cannabis was used in the sample. Re-assessed about eight months after the trial started, reductions in cannabis consumption were not significantly greater among participants offered the longer therapy, but they did record a significantly greater decrease in the severity of dependence, and the extra decrease in cannabis-related problems neared statistical significance.

What seems to have distinguished the US study from other studies which did not find longer therapies as consistently preferable was that these tended to have smaller samples, sometimes used less experienced therapists for the longer therapies, conducted these in groups, research requirements could have filtered out all but the most promising clients, and they tested inflexible programmes focused on abstinence. The US study avoided these features which may have obscured the benefits of longer therapy, and for the first time found a clear advantage over a briefer therapy. But even if it were the case that longer therapies are more effective, there would remain the issues of their *cost-effectiveness* and their acceptability to patients. In [another US study](#), when their waiting periods expired nearly two-thirds of the patients waiting for treatment chose a brief intervention in preference to a longer one.

Such findings suggest that briefer motivational and cognitive-behavioural therapies lasting from one to four sessions are candidates for the default response to dependent cannabis use, and counsel against routinely allocating even highly dependent cannabis users to extended cognitive-behavioural therapies. However, the findings also suggest these more extended therapies should be made available when brief



however, the findings also suggest these more extended therapies should be made available when brief therapies prove inadequate, and that in some circumstances, they can on average improve outcomes, but at greater cost. Due to extra cost and lesser acceptability to patients, longer therapies can also be expected to reach fewer people who might benefit from treatment.

Patients with serious mental illness

Another review dedicated to this issue has confirmed the featured review's conclusions on the general equivalence of psychological therapies for problem cannabis use among seriously mentally ill patients, their generally poor results, and their failure to improve on usual treatments. Across substance use problems the verdict was similar in a [review of randomised trials](#). However, when the authors [extended their remit](#) to studies beyond those which had randomly allocated patients to different approaches, they found some evidence for the use of motivational interviewing in psychiatric settings combined with cognitive behavioural therapy, but little for cognitive behavioural therapy alone.

See also related Effectiveness Bank hot topics on [treatment of problem cannabis use](#) and on the treatment of patients suffering [both mental illness and substance use](#) problems.

Last revised 08 December 2015. First uploaded 02 December 2015

- ▶ [Comment/query to editor](#)
- ▶ [Give us your feedback on the site \(two-minute survey\)](#)
- ▶ [Open Effectiveness Bank home page](#)
- ▶ [Add your name to the mailing list](#) to be alerted to new studies and other site updates

Top 10 most closely related documents on this site. For more try a [subject](#) or [free text search](#)

STUDY 2008 [Coping skills training and contingency management treatments for marijuana dependence: exploring mechanisms of behavior change](#)

STUDY 2011 [Treatment of adolescents with a cannabis use disorder: Main findings of a randomized controlled trial comparing multidimensional family therapy and cognitive behavioral therapy in The Netherlands](#)

REVIEW 2010 [Treatment of cannabis use among people with psychotic or depressive disorders: a systematic review](#)

STUDY 2005 [Brief interventions short-change some heavily dependent cannabis users](#)

STUDY 2011 [Using a cross-study design to assess the efficacy of motivational enhancement therapy-cognitive behavioral therapy 5 \(MET/CBT5\) in treating adolescents with cannabis-related disorders](#)

STUDY 2006 [Soup kitchen turned into therapeutic setting](#)

REVIEW 2008 [Psychosocial interventions for people with both severe mental illness and substance misuse](#)

REVIEW 2009 [Cognitive-behavioral treatment with adult alcohol and illicit drug users: a meta-analysis of randomized controlled trials](#)

MATRIX CELL 2014 [Drug Matrix cell E4 Treatment systems: Psychosocial therapies](#)

REVIEW 2010 [A meta-analysis of motivational interviewing: twenty-five years of empirical studies](#)