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# Can non-pharmacological interventions prevent relapse in adults who have recovered from depression? A systematic review and meta-analysis of randomised controlled trials

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## HIGHLIGHTS

- We evaluated non-pharmacological interventions given after recovery from depression.
- The main meta-analysis incorporated 27 two-way comparisons and 2742 participants.
- CBT, MBCT and IPT reduced risk of relapse 12 months after recovery.
- The efficacy of MBCT following acute psychotherapy was largely untested.
- Longer term outcomes and the impact of acute treatment need further exploration.

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## ABSTRACT

*Objective:* To identify studies of non-pharmacological interventions provided following recovery from depression, and to evaluate their efficacy in preventing further episodes.
*Method:* We identified relevant randomised controlled trials from searching MEDLINE, Embase, PsycINFO, CENTRAL, and ProQuest, searching reference and citation lists, and contacting study authors. We conducted a meta-analysis of relapse outcomes.
*Results:* There were 29 eligible trials. 27 two-way comparisons including 2742 participants were included in the primary analysis. At 12 months cognitive–behavioural therapy (CBT), mindfulness-based cognitive therapy (MBCT), and interpersonal psychotherapy (IPT) were associated with a 22% reduction in relapse compared with controls (95% CI 15% to 29%). The effect was maintained at 24 months for CBT, but not for IPT despite ongoing sessions. There were no 24-month MBCT data. A key area of heterogeneity differentiating these groups was prior acute treatment. Other psychological therapies and service-level programmes varied in efficacy.
*Conclusion and implications:* Psychological interventions may prolong the recovery a person has achieved through use of medication or acute psychological therapy. Although there was evidence that MBCT is effective, it was largely tested following medication, so its efficacy following psychological interventions is less clear. IPT was only tested following acute IPT. Further exploration of sequencing of interventions is needed.
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## 1. Introduction

People who have recovered from an episode of depression (whether spontaneously or following the provision of treatment) are at an increased risk of becoming depressed again in the future. This risk can be as high as 60% for people who have experienced one episode, 70% in those who have had two episodes, and 90% in those who have had three previous episodes (American Psychiatric Association, 2000). These repeated episodes and the associated long-term suffering mean depression produces a large disease burden: the World Health Organisation estimates it to be the leading cause of disability worldwide (WHO, 2009) and is projected to rise to be the second biggest cause of burden of disease by the year 2020 (Murray & Lopez, 1997). Given the extent of the problem it is unsurprising that there are calls for the prevention and treatment of depression to be made a global public health priority (Whiteford et al., 2013).

Intervening after recovery from depression can prevent relapse, but has been the subject of comparatively little research. A meta-analysis of maintenance medication following recovery (Geddes et al., 2003) included only 31 trials, and there has not yet been, as far as we know, a comparable review in the non-pharmacological domain (one that considers randomised trials of all non-pharmacological options following recovery). A recent review looked at psychological therapies delivered to adults aged 18–54 (Biesheuvel-Leliefeld et al., 2015) and included 25 studies. Most reviews prior to this have been limited to one psychological intervention, for example mindfulness-based cognitive therapy (Piet & Hougaard, 2011), continuation cognitive behavioural therapy (, Clark, & Jarrett, 2009) or brief psychological interventions (Rodgers et al., 2012). In comparison, a series of recent reviews undertaken for a major national clinical guideline for depression (NICE, 2009), identified over 1500 trials of acute treatment using antidepressant medication and over 200 trials of acute psychological interventions. This serves to highlight the importance of further work in the area, particularly research that complements the existing evidence for acute treatments, and that extends our focus beyond 'recovery', towards prevention of relapse.

### 1.1. Characterising relapse

Clarity in the characterisation of relapse in depression is a difficult task given the nature of the disorder. There is (as yet) no biomarker to indicate presence of an episode, and symptoms tend to fluctuate over time rather than having dimensional shifts where there is a clear demarcation between illness and normal functioning (Clark & Beck, 1999; Hersen & Beidel, 2011; Ingram, 1998). For this reason, the criteria and level of symptoms needed to signify an episode of depression can vary. Diagnosis is important in indicating when a person may require treatment, but equally a person with symptoms that do not meet criteria for an episode may still have impaired functioning, and is at a greater risk of illness than someone with low or no symptoms (Cuijpers & Smit, 2004).

Taking into account this increased risk of further episodes of depression in those who have brief or incomplete recovery, Frank et al. (1991) identified four clinically important change points. They used the word 'remission' to indicate reduction of symptoms to below the diagnostic threshold for depression, and 'recovery' to indicate remission that lasted more than 6 months. They then differentiated between 'relapse', which was a diagnosable episode of depression occurring during remission, and 'recurrence' an episode that followed recovery. Although developed over twenty years ago with the aim of clarifying important points in the course of depression, these terms have not been universally adopted. This may be due to limited dissemination, but some have argued that the distinction between 'relapse' and a 'recurrence' is not clearly supported by evidence from intervention trials (Richards & Perri, 2010).

Inconsistencies in the terminology used to describe the course of depression present a challenge when attempting to combine data from multiple research studies. Indeed, a recent review of the lifetime approach to depressive disorder promotes the use of distinct terms for relapse and recurrence, yet these seem to be of limited utility, with the authors reverting to the broader 'relapse/recurrence' summary term to describe the majority of research (Bockting, Hollon, Jarrett, Kuyken, & Dobson, 2015). In this paper we use the term 'recovery' to denote any period where a person no longer meets diagnostic criteria