Mindfulness-based stress reduction for people with chronic diseases

CRD summary
The review found that participation in a MBSR programme was likely to improve symptom management, overall quality of life and health outcomes in individuals with chronic disease. In view of limitations in the review, including marked clinical and methodological differences between the studies, failure to assess study validity and lack of statistical information, these conclusions may not be reliable.

Authors' objectives
To determine the effectiveness of mindfulness-based stress reduction (MBSR) as a supportive therapy for people with chronic diseases.

Searching
PsycINFO, PubMed, EMBASE, Meditext, Informit, AgeLine, ProQuest, PsycARTICLES, CINAHL and an unspecified Wiley database were searched from 1998 to June 2009. Search terms were reported. The search was limited to published peer-reviewed studies in English.

Study selection
Studies of MBSR for adults with chronic disease were eligible for inclusion. Any modifications to the programme were required to be minor (such as eight-week rather than 10-week duration). Studies that included cancer patients or symptom-free participants were excluded.

Participants in the included studies had chronic conditions such as fibromyalgia, chronic pain, rheumatoid arthritis, type 2 diabetes, chronic fatigue syndrome, multiple chemical sensitivity and cardiovascular disease. Mean participant age ranged from 44 to 75 years (where reported). Most participants were women. All studies used the Kabat-Zinn MBSR programme, sometimes with minor modifications. Control conditions included waiting list, active social support and standard care.

Outcomes reported in the review included mental health, well-being/quality of life, physical health and acceptability/adherence. Outcomes were measured using a variety of self-report and physiological measures. Follow-up ranged from a few weeks to three years post intervention.

The author did not state how many reviewers performed study selection.

Assessment of study quality
The author did not state that validity was assessed.

Data extraction
A description of the main findings of each study was presented in tables in the review. The author did not state how many reviewers performed the data extraction.

Methods of synthesis
Studies were combined in a narrative synthesis organised by type of outcome.

Results of the review
Fourteen studies were included (n=672, range eight to 133): six randomised controlled trials (RCTs, n=259), three pre-post studies (n=61) and five prospective observational studies (n=352), three of which were controlled.

In all studies the intervention was associated with improvements for at least some of the variables measured and in no case was it associated with an inferior outcome. The intervention was associated with significant benefit in six of eight studies of anxiety and four of eight studies of depression and with improvement in eight of nine studies of other mental...
health outcomes. The intervention was associated with improvement in quality of life and/or well-being in four out of six relevant studies, improvement in pain in four out of five studies and improvement in physical functioning in two out of five studies.

All seven studies that reported on acceptability demonstrated a positive participant response. Three studies that reported on adherence found that most participants continued mindfulness practice after the study finished.

Authors' conclusions
Participation in a MBSR programme was likely to improve symptom management, overall quality of life and health outcomes in individuals with chronic disease.

CRD commentary
The objectives of the review were clearly stated. There appeared to be no specific inclusion criteria for study design or type of outcome. Relevant sources were searched for studies, but the restriction by publication status and language made the review at risk of language and publication biases; these were not formally assessed. It was unclear whether studies processes (such as study selection and data extraction) were conducted in duplicate to minimise risks of reviewer bias and error. It did not appear that study validity was assessed.

Study design was not taken into account in the interpretation of results. Sample numbers were reported only after (unspecified) drop-outs had been deducted. Broad inclusion criteria for the review meant that there was a high degree of clinical and methodological heterogeneity between the studies. No estimates of effect, p values or measures of variability were reported. It was not always clear whether study findings were statistically significant. All these factors made it hard to determine the reliability and clinical applicability of the review findings.

In view of limitations in the review, which included marked clinical and methodological differences between the studies, failure to assess study validity and lack of statistical information, the author's conclusions may not be reliable.

Implications of the review for practice and research
Practice: The author stated that MBSR programmes can improve symptom management, overall quality of life and health outcomes in individuals with chronic disease. They suggested that MBSR had potential for much wider application in Australian primary care settings as an adjunct to standard care.

Research: The author stated that future studies could examine the impact of duration and intensity of MBSR programmes on outcomes. Further research was needed to determine the costs and benefits of MBSR programmes for individuals with chronic disease.

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This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.