## Behavioural modification interventions for medically unexplained symptoms in primary care: systematic reviews and economic evaluation

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## **Plain English summary**

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he term 'medically unexplained symptoms' is used in relation to individuals who present to their general practitioner with persistent symptoms that cannot easily be explained, even after adequate physical examination and appropriate investigations. Common interventions delivered in primary care tend to be psychological interventions, behaviour therapies or physical exercise therapies. These therapies often aim to change the behaviours of the individual that may make symptoms worse. We conducted systematic reviews of existing evidence to evaluate the effectiveness and acceptability of behavioural interventions delivered in primary care, and a cost-effectiveness analysis to see whether or not they offer good value. Studies measured improvement in outcomes, such as physical or psychological symptoms, or health-related quality of life. There were large differences in the nature of the behavioural interventions delivered and so we grouped them into 'types'. These included intervention types involving exercise (e.g. aerobic or strengthening, or graded activity); different types of psychotherapy, for example cognitive-behavioural therapy; interventions focused on relaxation or social/emotional support; interventions offering education and information; and interventions by general practitioners, for example receiving training on how to implement a behavioural approach to treating medically unexplained symptoms. Statistical analyses were conducted to investigate which, if any, of the intervention types were effective when compared with usual care. Results indicated that some of the behavioural intervention types showed beneficial effects at the end of treatment and at short-term follow-up. In particular, cognitive-behavioural therapy at a higher intensity, and therapies consisting of components of more than one intervention type (i.e. multimodal therapies), showed beneficial effects for specific physical symptoms such as pain, fatigue or bowel symptoms. High-intensity cognitive-behavioural therapy, other types of psychotherapies and interventions focusing on relaxation and social/emotional support showed some beneficial effects on mood outcomes such as depression and anxiety. By long-term follow-up, effects had diminished. More complex measures of symptom load or 'somatisation' showed fewer beneficial effects. We found that no one intervention improved outcomes across all medically unexplained symptoms.

However, the results of the statistical analyses should be interpreted with caution. Not only were there differences in the types of behavioural interventions trialled in the included studies, but there were also differences in the characteristics of interventions within the same type. Participants of the studies had a range of symptoms and syndromes, of varying severity and duration. Interventions of the same type varied in how they were delivered, for example the qualifications of the therapist and the contact time spent between therapist and patient. Owing to the limited number of studies in each intervention type, it has not been possible to identify how these differences influenced the results.

Interventions delivered by general practitioners themselves did not generally show beneficial effects. However, the relationship between general practitioner and patient was perceived to be important. Patients valued receiving explanations for their symptoms and learning self-management techniques. This was facilitated by good relationships with their health-care practitioner. Health-care practitioners reported a need for training and supervision, but patients reported that the primary care setting was both appropriate and helpful. A successful behavioural intervention should allow a patient and their care provider to maintain a relationship where the patient feels supported.

Analyses of the cost-effectiveness of the interventions showed a wide variation in costs. Costs varied between different intervention types, but also between interventions of the same type. Differences in the nature of interventions within the same intervention type, for example whether delivery is to groups or to individuals, make comparisons difficult.

Future research should focus on identifying how the relationship between the general practitioner and their patient can influence the effectiveness of a behavioural intervention when it is conducted in the primary care setting. In addition, more research is needed to explore which aspects of the more promising interventions are influencing their effectiveness.

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