



THE EFFECTIVENESS OF CONSERVATIVE INTERVENTIONS FOR THE MANAGEMENT OF SYNDROMIC HYPERMOBILITY: A SYSTEMATIC LITERATURE REVIEW

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BACKGROUND

'Syndromic hypermobility' encompasses heritable connective tissue disorders such as hypermobile Ehlers-Danlos Syndrome (hEDS) and Hypermobility Spectrum Disorders (HSD) which are characterised by excessive joint range of motion and pain.

Conservative interventions such as exercise are the cornerstone of management, yet their effectiveness is unclear. The aim of this review was therefore to systematically identify and appraise research evidence relating to the effectiveness of conservative management for people with syndromic hypermobility.

METHODS

A systematic online database search was conducted on 27 February 2019 and updated on 1 June 2020 (AMED, BND, CINAHL Plus, MEDLINE, PEDro, PsychINFO and SportDiscus). Potential articles were assessed for eligibility by two researchers against the following criteria:

- adults and children with a hEDS/HSD diagnosis (or equivalent historical diagnosis using specific criteria);
- non-pharmacological or non-surgical interventions;
- outcomes related to pain, physical function, psychological well-being or quality of life.

Controlled trials and cohort studies were included. Critical Appraisal Skills Programme checklists were used to assess methodological quality and risk of bias. Results were compiled using narrative synthesis.

RESULTS

Eleven studies were included, comprising eight controlled trials and three cohort studies.

All studies investigated interventions that had exercise as the primary component. Three small randomised controlled trials (n=20-46) in adults demonstrated superior effects of conservative management relative to a control group on outcomes such as joint position sense, muscle endurance, pain, physical function and postural stability. However, those studies only focused on a single area of the body, only recruited women, and had no long-term follow-up.

The other controlled studies failed to provide convincing evidence for the superiority of specific conservative interventions when compared either to a control group or other such interventions.

All studies (including cohort studies) reported improvements in a very wide range of outcomes over time from pre- to post-treatment in both adults and children. The evidence should be interpreted with caution due to a range of methodological limitations across all studies.

CONCLUSION

This systematic review provides weak evidence for the effectiveness of conservative management for the management of syndromic hypermobility. This is based on three small randomized controlled trials in adults that demonstrated superior effects relative to no treatment.

The review found no evidence for superior effects of specific conservative interventions when compared with other such interventions.

All studies observed improvements from pre- to post-treatment in adults and children in a very wide range of impairment, activity and participation level outcomes.

The reviewed evidence related to interventions that had exercise as a core component. There remains a need for more rigorous randomised controlled studies to better inform clinical practice. Future studies should pay particular attention to issues related to sample size, blinding, long-term follow-up, the evaluation of 'whole body' management (rather than individual joints or body areas), and the inclusion of adequate comparators.

DECLARATIONS OF INTEREST

None