PHYSIOTHERAPY FOR ADULTS WITH JOINT HYPERMOBILITY SYNDROME: A PILOT RANDOMISED CONTROLLED TRIAL

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Background: Joint Hypermobility Syndrome (JHS) is a heritable disorder associated with laxity and pain in multiple joints. Physiotherapy is the mainstay of treatment but there is little research investigating its effectiveness. The aim of this study was therefore to conduct a pilot randomised controlled trial (RCT) to determine the feasibility of conducting a future definitive RCT.

Methods: A comprehensive physiotherapy intervention was developed in conjunction with patients and healthcare professionals. It was then piloted and refined on the basis of patient and physiotherapist feedback. A parallel two-arm pilot RCT in two UK secondary care NHS Trusts compared 'Advice' against 'Advice & Physiotherapy'. Inclusion criteria were: >16 years, a diagnosis of JHS, and no other musculoskeletal conditions causing pain. The Advice intervention was a one-off session, supplemented by advice booklets from the Hypermobility Syndromes Association and Arthritis Research UK. All patients could ask questions specific to their circumstances and received tailored advice. Participants were then randomly allocated to 'Advice' (no further advice or physiotherapy) or 'Advice & Physiotherapy' (an additional six 30 minute sessions over 4 months). The Physiotherapy intervention was supported by a patient handbook and delivered on a one-to-one patient-therapist basis. It aimed to increase patients' physical activity through developing knowledge, understanding and skills to better manage their condition. The primary outcome related to the feasibility of conducting a future definitive RCT. Qualitative interviews with patients and physiotherapists therefore formed a major component of data collection. Secondary outcomes included clinical measures (physical function, pain, global status, self-reported joint count, quality of life, exercise self-efficacy and adverse events); resource use (to estimate cost-effectiveness); and an estimate of the value of information from a future RCT. Outcomes were recorded at baseline, 4 months (at the end of physiotherapy) and 7 months (3 months following physiotherapy).

Results: A total of n=29 participants were recruited to the pilot RCT. Recruitment was challenging, primarily due to a perceived lack of equipoise between Advice and Physiotherapy. The qualitative evaluation provided very clear guidance to inform a future RCT, including enhancement of the Advice intervention. Some patients reported that the Advice intervention was useful and the Physiotherapy intervention was evaluated very positively. The rate of return of questionnaires was low within the Advice group but reasonable in the Physiotherapy group. The Physiotherapy

intervention showed evidence of promise in terms of primary and secondary clinical outcomes. The Advice arm experienced more adverse events. The value of information estimate indicated the potential for high value from a future RCT.

Conclusion: A future definitive RCT of physiotherapy for JHS seems feasible, although the Advice intervention should be made more robust to address perceived equipoise and subsequent attrition.