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Physiotherapy and pelvic girdle pain in pregnancy: a four-armed pilot randomized controlled trial

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Abstract

Background. Pelvic girdle pain (PGP) is a common problem in pregnancy that affects approximately 20% of women. It can be a very disabling condition, and optimal treatment approaches have yet to be established in the literature. A historical review of a women's health physiotherapy service for patients with PGP revealed a trend towards seeing patients in groups.

Objectives. The aims of this study were:

- to establish whether physiotherapy relieves PGP;
- to establish whether group or individual treatment is preferable;
- to establish whether multiple or single treatment sessions produce better results;
- to examine the whole pathway of physiotherapy offered to patients with PGP (e.g. advice and education, mobilizations, exercises prescription, and support belts and/or crutches); and
- to explore the effect of PGP on women's experiences of pregnancy, birth and the post-partum period.

Participants and methods. The study took the form of a four-armed pilot randomized controlled trial (RCT). Sixty-one participants with PGP who had been referred by midwives, general practitioners and obstetricians were recruited between March and December 2012. These women were all between 14 and 32 weeks gestation. The participants were randomized to one of four treatment arms. Prior to randomization, the women were assessed for PGP with validated musculoskeletal tests in 30-min assessment slots. All treatment arms of the study included: advice, education and exercise prescription, mobilizations, and muscle energy techniques, as appropriate; provision of support belt and/or crutches, as appropriate; and also the offer of self-referral of symptoms follow-up treatment. The four treatment arms were:

- (1) a one-off group session;
- (2) a one-off individual session;
- (3) individual sessions for 6 weeks; and
- (4) group sessions for 6 weeks.

Outcome measures. All participants completed the Patient-Specific Functional Scale (PSFS), a visual analogue scale (VAS) for pain and the Patient Self-Efficacy Questionnaire (PSEQ) at baseline, 3 weeks, 6 weeks and 3 months post-partum. Each participant was also sent a post-natal mixed methods questionnaire at 3 months post-partum. Descriptive statistics were used to assess the average change scores for each group for each outcome measure.

Results. Whether in a group or not, the participants who underwent one-off treatment sessions exhibited a clinically significant worsening of pain and function on all of the outcome measures used. Six sessions of treatment resulted in improvements in pain and function. This was most noticeable in the six group sessions, which demonstrated a clinically significant improvement on the PSEQ, and were almost at the two data point change level of clinical significance on the VAS and PSFS. Multiple treatment sessions including advice and supervised exercise appear to produce better clinical outcomes, and women with PGP appear to respond better to treatment when they are in a group. The 3-month post-natal questionnaire had a response rate of 35%, but these results have yet to be analysed.

Conclusions. The project has led to changes to the normal management of patients with PGP at this women's health physiotherapy service. The team continue to use the validated tests during assessment, and the validated outcome measures to evaluate treatment. The results are also helping the service to advertise its management to future patients with PGP. Most importantly, the RCT has widened the team's knowledge of the research process, and encouraged its members to seek collaboration with other centres in order to conduct a wider, multicentre-funded trial investigating physiotherapy treatment for PGP.

Keywords: pelvic girdle pain, physiotherapy, pilot, pregnancy, randomized controlled trial.

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