

EFFECTS OF PHYSIOTHERAPY IN WOMEN WITH PELVIC FLOOR DYSFUNCTION FOLLOWING OBSTETRIC ANAL SPHINCTER INJURY (OASIS): A FEASIBILITY STUDY

Hypothesis / aims of study

Clinically diagnosed obstetric anal sphincter injury (OASIS) occurs in about 3% of women after having their first baby, and 0.8% of women who have previously had at least one baby ⁽¹⁾. The consequences of OASIS include bowel symptoms in 28% to 59% of women with extensive tears. Urinary incontinence and sexual dysfunction may also occur. Physiotherapy is often considered as the first-line approach for bowel, bladder and sexual symptoms following OASIS due to the safe and non-invasive nature of the intervention.

This study aimed to investigate the changes in bowel, bladder and sexual symptoms and quality of life together with changes in the pelvic floor muscle activity following a course of physiotherapy in women with OASIS. This study also aimed to determine a likely recruitment rate and establish organisational factors necessary for a planning a larger study.

Study design, materials and methods

Between October 2010 and April 2011 all women referred to the women’s health physiotherapy department with symptoms of pelvic floor dysfunction and endosonographic evidence of OASIS were invited to take part in this feasibility study.

This was a prospective observational study where women were asked to fill out symptom and quality of life questionnaires before and after a course of physiotherapy.

The physiotherapy management consisted of five appointments over a sixteen week period and included Pelvic floor muscle training, Electromyographic (EMG) Biofeedback, Bowel and Bladder retraining and advice on lifestyle interventions according to national guidelines ^(2,3).

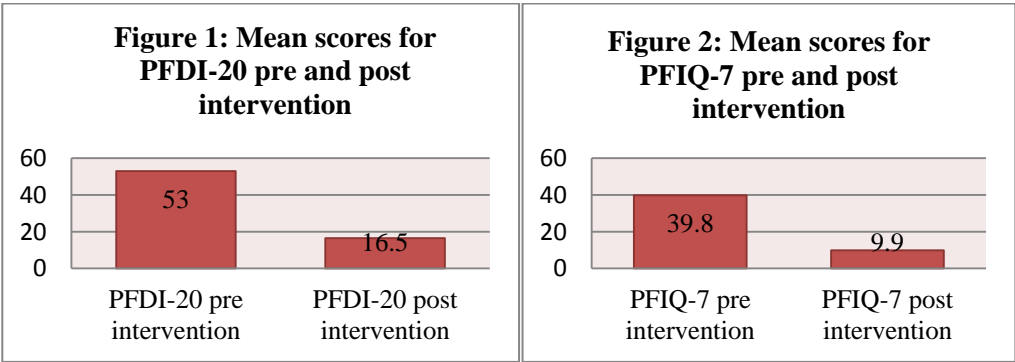
To estimate the changes in pelvic floor dysfunction the following questionnaires were utilised: the Female Sexual Function Index questionnaire (FSFI), the Pelvic Floor Distress Inventory Questionnaire short form (PFDI-20) and the Pelvic Floor Impact Questionnaire short form (PFIQ-7). To measure the change in pelvic floor muscle activity the Modified Oxford Scale (MOS) and Electromyographic (EMG) activity were utilised. These outcomes measures were taken at baseline (commencement of physiotherapy) and at follow up (16 weeks).

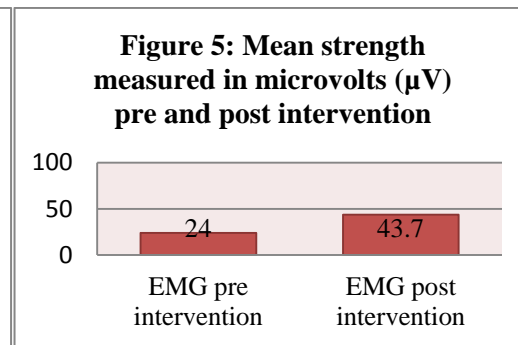
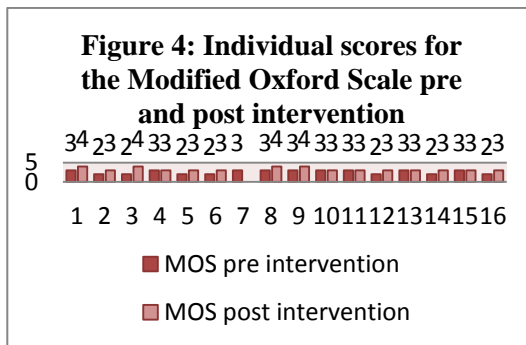
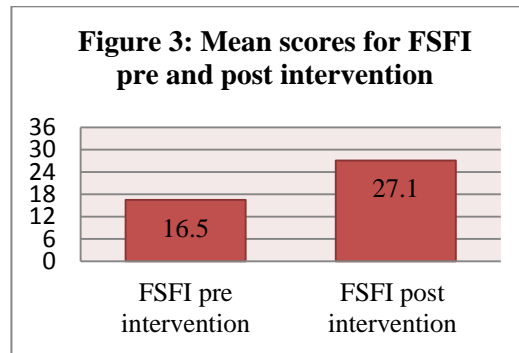
Results

16 participants were recruited. 13 (81%) participants were primiparous with a mean age of 35.8. 14 (88%) participants were Caucasian. Of the 16 participants, 7 (43.75%) had an instrumental delivery and 9 (56.25%) had a spontaneous vaginal delivery. There was statistical significant difference in the reduction of bladder, bowel and sexual symptoms and improvement in quality of life and pelvic floor muscle activity (p<0.05) Please see Table 1.

The following figures show the mean results of the questionnaires (Figure 1, 2, 3), the modified oxford scale (Figure 4) and the EMG pelvic floor activity (Figure 5) before and after the physiotherapy intervention (16 weeks).

Outcome measure	Change (pre-post) Mean (95% CI)	p-value
MOS	0.72 (-1.06, -0.41)	<0.001
EMG	19.27 (-24.5, -14.0)	<0.001
FSFI	10.8 (-15.7, -5.9)	<0.001
PFDI-20	-35.1 (19.8, 50.4)	<0.001
PFIQ-7	-31.6 (8.4, 54.7)	0.011





Interpretation of results

This feasibility study suggests that physiotherapy improves pelvic floor muscle activity and reduces symptoms of pelvic floor dysfunction in women with endosonographic evidence of OASIS. However, results should be interpreted with caution as there was no control group and it was a small sample.

Concluding message

This study demonstrates that a complex physiotherapy intervention can improve pelvic floor muscle activity and change symptoms of pelvic floor dysfunction in women with endosonographic evidence of OASIS.

References

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2. National Institute for Clinical Excellence (NICE) (2006) The management of urinary incontinence in women. London: NICE
3. National Institute for Clinical Excellence (NICE) (2007) The management of faecal incontinence in adults. London: NICE.

Disclosures

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Guy's and St. Thomas' NHS Foundation Trust Ethics committee

Oxford Brookes School of Health and Social Care Research Ethics Committee **Helsinki:** Yes **Informed Consent:** Yes