

IUGA 2021 conference abstract: poster presentation

Promoting adherence to pelvic floor muscle exercises: analysis of exercise prescription, prompts to exercise, and predictors of exercise diary return, during a randomised controlled trial.

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Introduction: Urinary Incontinence (UI) is involuntary leakage of urine and is highly prevalent in women. First-line treatment for uncomplicated UI is pelvic floor muscle training (PFMT) however PFMT adherence is challenging. A randomised clinical trial tested whether adding electromyographic biofeedback to PFMT (n=300) would improve women's exercise adherence and incontinence long-term compared to standard PFMT (n=300). During the trial clinicians used exercise diaries to record PFMT prescriptions and exercise reminders (prompts) given to women. Returned diaries provided an opportunity to summarise these prescription and reminders in a large cohort of women and to identify participant characteristics that might predict diary return.

Objectives: To describe PFMT prescription by treatment arm (session 1 to 5 of 6 PFMT sessions); to assess exercise prescription patterns over time within and between trial groups; to assess baseline participant characteristics predicting diary return; to qualitatively summarise prompts documented for standard PFMT (control) group.

Method: Returned exercise diary prescription data were summarised and analysed using a repeated measures multivariable linear regression model adjusting for study centre, age, incontinence type and severity. Multivariable logistic regressions were run to determine which baseline characteristics (age, type/severity of incontinence) predicted return of at least one diary. Content analysis was used to summarise categories of prompts agreed between clinicians and women.

Results: 1628 diaries were returned from 460 participants; 225 (75%) control group and 235 (78%) intervention group returned at least one diary. Two key strengthening exercise variables (hold time (seconds); repetitions) showed progression over time in both groups. Comparing intervention versus control there was little evidence of difference for hold time (mean difference -0.3; 95% confidence interval -1.0, 0.4) or for pattern of change over time (global p-value 0.12). The intervention group had slightly higher repetitions (0.4; 0.1, 0.8), and weak evidence of different pattern across time (global p-value 0.08). Numbers of exercise sessions per day and days exercising per week tended not to progress in either group with overall means of 3.58 v 3.11 for sessions; 6.83 v 6.75 for days (control vs intervention). Participants aged 50 and over were more likely to return at least one diary than those under 50 (odds ratio 1.55; 95% CI 1.03, 2.32). Participants with more severe incontinence were less likely to return a diary (OR 0.58; 0.38, 0.87). Participants with mixed vs stress incontinence showed higher diary return but associated CI was wide (OR 1.28; 0.86, 1.90). Several exercise prompt categories were linked to specific activities/places: *being in*

the kitchen category included examples ‘while cooking’ or ‘waiting for kettle to boil’; *in the bathroom* category included ‘after showering’ or ‘after going to the toilet’. These contrasted with non-specific prompt categories, such as to exercise *throughout the day*, for example ‘in the morning’ or ‘morning and evening’.

Conclusion: Each trial group received guideline concordant care for their PFMT prescription, including progression over time; with no important differences in prescription between groups. More consistent use of specific prompts to support exercise adherence could be achieved. Future research will evaluate participants’ diary entries to assess self-report of PFMT adherence.

498 (excluding sub-headings) – max allowed = 500

3 Keywords:

Pelvic floor muscle training; exercise prescription; exercise diaries

3 questions for discussion

- 1) Do you think exercise diaries are worthwhile?
- 2) Why do you think older women and those with less severe incontinence were more likely to return their exercise diaries?
- 3) What advice would you give to clinicians to help them support women to select more specific prompts or cues to doing their pelvic floor exercises?