

IS A CELL APP USEFUL IN THE TREATMENT OF URINARY INCONTINENCE SYMPTOMS?

Hypothesis / aims of study

To develop and to test a cell app able to help urinary incontinence women to perform pelvic floor muscle training at home.

Study design, materials and methods

15 urinary incontinent patients from a Women Health Center in Brazil were followed from January to March 2017. Sample study mean age and body mass index were 43 (± 10.13) and 27 (± 3.95 kg/m²) respectively. To access severity of urinary incontinence symptoms, patients were initially evaluated using *International Consultation on Incontinence Questionnaire Urinary Incontinence - Short Form (ICIQ UI-SF)*, *Female Sexual Function Index (FSFI)* and *Questionnaire for Urinary Incontinence Diagnosis (QUID)*. To access pelvic floor muscle (PFM) function, patients were submitted to bi-digital palpation (PERFECT scheme using *modified Oxford* grading scale) and surface electromyography (EMG). At this first session, patients had the opportunity to experience Biofeedback supervised by a physiotherapist who assure they were perform PFM correctly. So, familiar with this technique, patients were asked to perform exercise at home using a cell app (Figure I) specially developed for this proposal. The dispositive uses an Android Operating System, able to keep data at a Microsoft azure platform cloud to predict patient adherence to protocol and uses the same visual graphic presented by Biofeedback as a guide for PFM training. 30 days after initial evaluation, patients returned and the same initial protocol were applied and the results compared. Additionally a scale for the subjective improvement index (table I) (1) was obtained.

Results

Comparison between initial and final values showed significant difference in ICIQ UI-SF scores ($p=0.0007$), QUID scores to stress urinary incontinence ($p=0.0002$) and Overactive Bladder ($p=0.0132$) but no difference when comparing FSFI results. The PERFECT Scheme showed significant improvement at "Power" ($p=0.0313$) and "Fast" ($p=0.0068$) component. 66% [$n=10$] of the patients referred subjective improvement of the symptoms. 26,66% [$n=4$] of them referred no changes and 6,66 [$n=1$] referred to be worst of the symptoms.

Interpretation of results

The followed patients had a satisfactory improvement of the urinary incontinence symptoms, pelvic floor muscle function and after 30 days were satisfied with the treatment.

Concluding message

The app seems to be a useful complementary dispositive for the treatment of urinary incontinent patients and future investigations with this tool must be considered.

Figure I- Graphic used at cel app to guide patients to PFM training (time to hold and time to repeat)

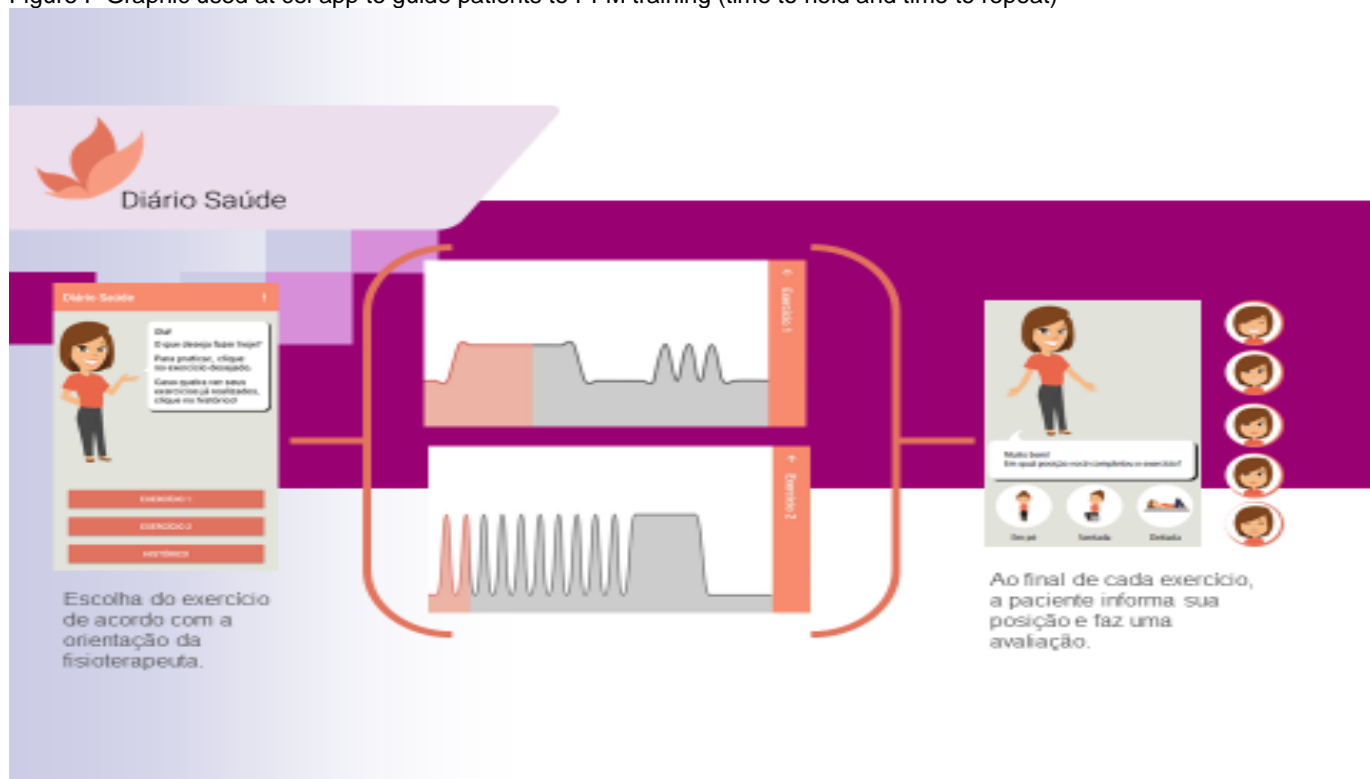


Table I: Women recorded how they perceived the condition before and after treatment on a 5 point scale

Subjective assessment n(%)	
Continent	0 (0)
Almost continent	0 (0)
Improved	10 (66,66)
Unchanged	4 (26,66)
Worse	1 (6,66)

References

1. Bo K, Talseth T, Holme I. Single blind, randomised controlled trial of pelvic floor exercises, electrical stimulation, vaginal cones, and no treatment in management of genuine stress incontinence in women. *BMJ*. 1999 Feb 20;318(7182):487-93.

Disclosures

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