The Use of Apps
To Support
Pelvic Floor Muscle Exercise

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The Use of Apps To Support Pelvic Floor Muscle Exercise

• Background
• Research questions
• Study design
• Results
• Conclusions & Further questions
Background: Urinary Incontinence
Background: Under reporting
Background: PFME

- Diligent performance
- Pelvic Floor Muscle Exercises
- Motivation
- Sustained over time
Background: Smart phone apps

Where adherence is a problem ... technology can play an important role
Boulos et al, 2011

... provide a useful starting point for implementing behavioural change in resource-poor settings
Bennett et al, 2011

... the potential for mobile communication to transform healthcare and clinical intervention in the community is tremendous
Boulos et al, 2011
Background: apps for UI / PFME
Research Questions

What motivates women to do PFME?

What factors help women to adhere to PFME?

What are the barriers to adherence to PFME?

What is the role of PFME apps in motivation and adherence to exercise?
Study Design

Explanatory Controlled Trial

**Enrolment**
- Assessed for eligibility (n= 30)
  - Excluded (n= 2)
    - Not meeting inclusion criteria (n= 1)
    - Declined to participate (n= 1)

**Allocation**
- Stratification and Randomized (n=28)
  - Allocated to Intervention Group 1 (n= 14)
    - Received apps on an iPod (n= 10)
    - Received apps without iPod* (n= 4)
  - Allocated to Control Group 2 (n= 14)
    - Received intervention without apps (n= 14)

*Participants who had their own Apple mobile device that they had agreed to use
Study Design
Study Design
Results

Of the participants in the intervention group (n=10), those who found the apps useful
Results

Of those who found the apps useful (n=4)
All increased the frequency of their exercise

Of those who didn’t find the apps useful (n=6)
Five maintained regular exercise or increased the frequency of their exercise
Results

Of the intervention group who got an iPod (n=7), those who found the apps useful (n=3)

Of the intervention group who just got apps (n=3), those who found the apps useful (n=1)
Qualitative Results

“Time and memory are massive constraints for me with this type of exercise. When I used the app, I would do more exercise as I would complete the sets even when I got distracted or forgot how many I had done. Without the app, I rarely did as many reps and often forgot completely.”

“I’m afraid none of the apps were interesting or motivating enough to use them more than 3 times. I would have preferred a DVD or program for a computer … but then I am not used to an iPhone or smart phone.”

“As far as the apps went, I didn’t find them helpful I’m afraid.”

“They all seemed fun to try and definitely helped me get into the habit of doing the exercises. In the end I stopped using the app and just did the exercises myself morning and night

“It was fun but soon got bored with the apps.”
Qualitative Results

“What all seemed fun to try and definitely helped me get into the habit of doing the exercises. In the end I stopped using the app and just did the exercises myself morning and night for 100 reps each time.”

“The calm voice talked me through the exercises making them simple and relaxing as well as reminding me of important things and which muscles to focus on. As the app counted each set for me, I carried on and did more than if I am doing the exercises without the app.”

“They all seemed fun to try and definitely helped me get into the habit of doing the exercises. In the end I stopped using the app and just did the exercises myself morning and night for 100 reps each time.”

“Clear and easy to follow”

“Encouraging and kept me focused”

“They also made me think about the timing.”
Qualitative Results

“Having a set time to do the exercises”

“Chart on bathroom wall helped me to develop habit”

“Having the form to fill; being part of something other people were doing; sense of having a framework of support to exercise.”

“OTHER THINGS THAT HELPED

“What helped, and so far has continued to keep me exercising was having the form to truthfully fill in. It became a habit that, even now I don’t have the form, I can visualise the number of exercises I want to do and imaging writing them in.”

“Although the apps didn’t really help me a lot, the protocol & writing down what I had done on every given day enabled me to remember and get into a routine. I will continue!”

“Having a set time to do the exercises”
Conclusions

Aspects of Adherence:
- Exercise
- Apps / adherence chart

Routine & Habit Formation

Functions
Choice
Personalisation

Ease of setting up and use

Fun and Games!
Further Questions

Available at: http://www.jacobcurtis.com/socialprops/

Too soon? Too sexy?
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Thankyou
Final Thought

“Thank you so much for helping me to learn to include the exercises in my daily routine!”

“Thank you! My quality of life has improved.”