



UMEÅ UNIVERSITET

Umeå University Medical Dissertations, New Series No 2075

A mobile app for self-management of urinary incontinence

Treatment effect and user experience

Ina Asklund

Akademisk avhandling

som med vederbörligt tillstånd av Rektor vid Umeå universitet för
avläggande av medicine doktorsexamen framläggs till offentligt
försvar i Hörsalen Snäckan, Östersunds sjukhus,
fredagen den 27 mars, kl. 09:00.
Avhandlingen kommer att försvaras på svenska.

Fakultetsopponent: Professor, Siv Mørkved,
Institutt for samfunnsmedisin og sykepleie, NTNU, Trondheim,
Norge.

Institutionen för folkhälsa och Klinisk medicin

Organization
Umeå University
Department of Public Health
and Clinical Medicine

Document type
Doctoral thesis

Date of publication
06 March 2020

Author
Ina Asklund

Title

A mobile app for self-management of urinary incontinence. Treatment effect and user experience.

Abstract

Background: Urinary incontinence affects 25-45% of all women. The most common type is stress urinary incontinence which is the leakage of urine on physical exertion. Pelvic floor muscle training is an effective first-line treatment, and an internet-based program has previously been found to be cost-effective.

Aim: To evaluate the mobile app Tät® which has a self-management program focused on pelvic floor muscle training for women with stress urinary incontinence, with respect to treatment effect, factors associated with successful treatment, user experience and use by pregnant and postnatal women.

Methods: Papers I, II and III are based on the same study population from a randomized controlled study. We recruited adult women that had stress urinary incontinence at least weekly. 123 women were randomized to the app group (n=62) or the control group (n=61). The app included information about incontinence, the pelvic floor and lifestyle factors associated with incontinence, pelvic floor muscle training exercises and functions for reminders and training statistics. Treatment outcome after three months was evaluated using validated questionnaires. Factors associated with a successful outcome were further analysed using logistic regression. We strategically selected 15 women from the app group and interviewed them about their experiences. The interviews were analysed according to Grounded Theory. After closing the RCT we made the app freely available and continued to monitor its use by incorporating an anonymous questionnaire that appeared within the app upon download and after three months (Paper IV).

Results: The app group reported significant improvements in the incontinence symptom score (mean ICIQ-UI SF reduction 3.9, 95% CI 3.0-4.7), and quality of life score (mean ICIQ LUTSqol reduction 4.8, 95% CI 3.4-6.2), and the difference between the groups was significant. At follow-up, 92% of the app group experienced improvement and 56% had improved “much” or “very much” and were classified as having a successful outcome. Factors associated with a successful outcome were higher expectations of treatment effect, weight control, and self-assessed improvement of pelvic floor muscle strength. Women experienced that the app “enabled their independence”. The app was “something new” that helped with “keeping motivation up” although they wondered whether their training efforts were “good enough”. The freely available app was downloaded by 10,456 pregnant and postnatal women (51% with incontinence). 1,805 women answered the follow-up after three months, and the majority of women with incontinence experienced improvement.

Conclusion: The Tät® app is an effective and popular self-management tool for women with stress urinary incontinence. The app is widely used by pregnant and postnatal women for both prevention and treatment.

Keywords

Stress urinary incontinence, pelvic floor muscle training, mHealth, self-management, randomized controlled trial, qualitative research

Language
English

ISBN
978-91-7855-223-8

ISSN
0346-6612

Number of pages
68 + 4 papers