Background

Bladder training (Wallace et al. 2004), prompted voiding (Eustice et al. 2002), timed voiding (Ostaszkiewicz et al. 2004a) and habit retraining (Ostaszkiewicz et al. 2004b) are common behavioural interventions used for the management of urinary incontinence in institutional, clinic and community settings.

What is known

- There is limited evidence that bladder training may be useful, and suggestive evidence that prompted voiding may be useful in the short term for managing urinary incontinence in adults, while there is insufficient evidence on habit retraining and timed voiding.

This study has compared and contrasted the four Cochrane systematic reviews to provide a synopsis using metastudy techniques. Metastudy techniques were developed for the review and synthesis of qualitative research, and comprise selection and appraisal of primary research, meta-theory, meta-methods and meta-data analysis (Paterson et al., 2001). Metastudy techniques are useful for revisiting the theory underpinning interventions, their design, methods and outcomes with a view to generating new ideas for research and future directions for empirical study. They may also be useful for the synopsis, descriptive comparison and contrast of systematic reviews of randomised controlled trials.

Aim and Objectives

The aim of the study was to compare and contrast four Cochrane systematic reviews on behavioural interventions, including bladder training and voiding programmes, for the management of urinary incontinence in adults. The purpose being to compare and contrast underpinning theory, definitions, study designs, interventions and outcomes to inform current clinical practice, generate new ideas and identify future directions for research.

Methods

Metastudy techniques used for the synthesis of qualitative studies comprise five stages; selection and appraisal of primary research, meta-theory, meta-method, meta-data analysis and meta-synthesis. These allow discursive comparison and contrast across studies and in this case the systematic reviews to provide a narrative synopsis. The study was undertaken in 2005-2006. Findings relate to historical and theoretical constructs, methods, outcomes, clinical effectiveness, adherence, feasibility and sustainability.

Findings

Historical Context

Bladder training: one of the earliest to evolve in the mid to late 1970’s aimed at people who are cognitively and physically able

Prompted voiding: came later and was targeted at people with cognitive and physical impairments by care staff and common in institutional settings

Habit retraining: evolved at a similar time as bladder training aimed at people who are cognitively and physically able

Timed voiding: also came later and aimed at people with cognitive and physical impairments by care staff and common in institutional settings

Political Conundrum

Possible Consequences

- There is a need to re-conceptualise the theory underpinning bladder training, prompted voiding, habit retraining and timed voiding in relation to their mutual exclusivity. Standardisation of terminology, definitions and the components of interventions is required.

- Operational overlap was found in relation to terminology, definitions and intervention components in the trials and studies reviewed across the systematic reviews. Consequently there was difficulty in whether to include or exclude studies from reviews.

- Clarification was sought from lead investigators in relation to the operational terms used and intervention components.

- Possible reasons for the overlap in terminology, operational definitions and intervention components or lack of clarity, may be due to the studies being undertaken before standardisation of terms available.

- Operational terms varied in the studies reviewed although they stated bladder training, prompted voiding, habit retraining and timed voiding were used;

- Or they stated they were used but insufficient detail was reported in the written account to confirm this.

- There is a need to explore cognitive mechanisms underlying bladder training and the voiding programmes, for example the potential role of Cognitive Behavioural Therapy.

- Recent trials comprise more complex interventions, with bladder training and voiding programs combined with cognitive techniques, exercise, dietary and lifestyle advice, which reflect evolving custom and practice and have implications for future trial designs.

Conclusion

This study has provided a novel approach using the framework and metastudy techniques developed for qualitative studies. It has provided an accessible discursive comparison and contrast of these four Cochrane systematic reviews and synopsis. The theoretical approaches underpinning bladder training and voiding programmes, their components and suitability for specific patients need to be re-considered when designing future research studies.

- Frequency of urinary incontinence is the most commonly cited outcome measure in randomised controlled trials on bladder training and voiding programmes, with limited or no data are available on other health outcomes, change in dependency status, quality of life or cost effectiveness included in trials and the systematic reviews and need to feature in future research.

- The theory under-pinning bladder training and voiding programmes for the management of urinary incontinence needs to be re-visited, the research design and interventions, outcomes and long term follow up also need to be considered in future research.

References


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