Research in Continence Care: Past & Present

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Introduction

**Past** - key national developments in continence care and research over past 40 years with reference to policy guidance and key texts

**Present** - current work we are undertaking on reviews of the evidence for bladder training, toileting programmes and what we know from Cochrane systematic reviews.

- a summary of findings from more recent parallel systematic reviews and umbrella review of studies managing incontinence in older people in care homes

**Contemporary** – finally present a brief introduction of what to expect at the conference and its context – ‘In, out & shout about !’
Past – Celebrating & learning for the future

In 2006, Journal of Advanced Nursing was 30 years old and celebrated its anniversary by republishing groundbreaking papers and editorials to give an indication of how they had contributed, how things had moved on and where future directions were

Editorials

Two key initiatives –
1981 - RCN multidisciplinary workshop on incontinence resources, Windsor sponsored by Squibb Surgicare Ltd
1981 – Kings’ Fund Action Group on Incontinence
Past – Timelines and organisations

1971- International Continence Society
1974 - Disabled Living Foundation - appointed 1st continence adviser

1983 - Association of Continence Advice
1988 - ERIC Education and Resources for Improving Childhood Continence – 1991 became registered charity
1989 - Incontact – Action on Incontinence

1990 - RCN Continence Care Forum
1991 - The Continence Foundation
PromoCon – Promoting Continence and Product Awareness

2008 - Bladder and Bowel Foundation
2008 - The James Lind Alliance on Incontinence Priority workshop
Past – Timelines and key workshops

1981- The Windsor Workshop – RCN & Squibb
Report of the residential workshop on incontinence resource Facilities

- Estimate prevalence of incontinence – 3M in the UK
- Estimate costs of incontinence - £36M per year aids, £24M pads
- Access to specialist advice - < 10%
- 87 surgical equipment companies with choice to individual based on prescriber

Recommendation – ‘...recognition should be given to the different needs of individuals...’

1982 - 16 Regional study days
‘The Problem of Promoting Continence’ – RCN Report
Past – Timelines and key workshops

1981- Action on incontinence- Report of a working group
Kings’ Fund Project paper 43

Chair Prof John Brocklehurst plus 16 interdisciplinary delegates

Objectives

- Increase knowledge among all professions
- Improve diagnostic and management facilities
- Improve evaluation and supply of appliances
- Educate public about incontinence and solutions
Past & present - Movers & shapers

Helen White
Bernard Isaacs
Alan Cottenden
Ann Winder
Ian Pomfrett
Jan Denning
Roger Feneley
Ray Addison
Brenda Roe
Lesley Irvine
Anne Kennedy
Kathy Getcliffe
Penny Dobson
John Brocklehurst
Janet Blannin
Frances Badger
Jo Laycock
Dorothy Mandelstam
Christine Norton
Mandy Fader
Mary Dolman
James Malone
Cheater
Mark Castleden
Thelma Wells
Hilary Duffin
Paul Abrams
Past – Timelines: key research, consultations & audit
Department of Health funded projects

*Understanding and treating incontinence: 7 videos for students and staff* - Brocklehurst & Ryan 1987

*Evaluation of health interventions by primary health teams and continence advisory services on patient outcomes related to incontinence* – Roe et al 1993

*Role of continence advisers in England & Wales* Rhodes & Parker 1993

*Development of methodologies to identify urinary incontinence and set targets for health gain* – Pearson et al 1995

*Consensus guidelines for the promotion and management of continence by the primary health care team* – Thome, Roe et al 1995
Past – Timelines: key research, consultations & audit

• International Consultations on Incontinence ICI ICS & WHO collaboration/funding
  International summit to identify priorities for nursing research on incontinence. Minneapolis, USA – Wyman et al 2003

• DH Good practice for continence services 2002;

• Royal College of Physicians national audit on incontinence 2004; 2008 – Potter, Wagg

• NICE guidelines on incontinence 2007; 2012
• BGS/RCN Continence Forum- Behind closed doors 2012
Past & present – Advances in research, practice and services

Key research on incontinence includes:

- Assessment & diagnosis
- Management - conservative management - lifestyle/behavioural interventions
  - drug treatments
  - surgery
  - aids & appliances
- Promotion of continence/prevention
- Education of staff, patients & carers
- Continence services and service delivery – various settings
- National audit
- Evidence synthesis, consensus & implementation
- Public, patient, carer involvement and consultation
Past & present – Advances in research, practice and services

Summary: We have -

• Empirical research
• International consultations & evidence synthesis
• Established continence services and good practice guidance
• Standards of care and benchmarking initiatives
• National audits of services and care
• NICE guidelines on incontinence
• Key professional and public organisations and industrial partners

• James Lind Alliance Workshop 2008 – Urinary incontinence – Tackling treatment initiatives together 21 partner organisations – 13 clinical organisations & 8 patient focused groups – identify uncertainties & future research priorities
Present – Evidence synthesis

Cochrane systematic reviews on bladder training and toileting programmes for the management of urinary incontinence in adults


**Habit retraining** - first published (Ostaszkiewicz et al 2004, updated 2010)

**Timed voiding** – first published (Ostaszkiewicz et al 2004, updated 2010)
Historical Context

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

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

**HR:** evolved at a similar time as BT aimed at people with impaired cognitive and physical abilities by motivated staff

**TV:** also came later and aimed at people with cognitive and physical impairments by care staff and common in institutional settings
Populations and Interventions

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Included:</th>
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<tbody>
<tr>
<td><strong>Bladder training</strong></td>
<td>12 trials, n = 1473 mainly women (Wallace et al 2009)</td>
</tr>
<tr>
<td><strong>Prompted voiding</strong></td>
<td>9 trials, n = 674 elderly, mainly women (Eustice et al 2009)</td>
</tr>
<tr>
<td><strong>Habit retraining</strong></td>
<td>4 trials, n = 378 mainly women (Ostaszkiewicz et al 2010)</td>
</tr>
<tr>
<td><strong>Timed voiding</strong></td>
<td>2 trials, n = 298 (Ostaszkiewicz et al 2010)</td>
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Outcomes

What did we find?

There is limited evidence suggests Bladder Training may be useful, and suggestive evidence that Prompted Voiding may be useful in the short term for managing urinary incontinence in adults.

There is insufficient evidence on the effectiveness of Habit Retraining and Timed Voiding to support for or against the management of urinary incontinence in adults.
Meta-study
Systematic review of bladder training and voiding programmes in adults: a synopsis of findings on theory, methods, data analysis and outcomes using meta-study techniques (Roe et al 2007 a,b)

To review the evidence base of bladder training, prompted voiding, habit retraining and timed voiding from systematic reviews and meta-study

To address definitions, historical and theoretical constructions, clinical effectiveness, resources, adherence, feasibility and sustainability

To identify gaps in evidence for these behavioural interventions

To identify and inform future research and current practice
Overview of the Evidence Base

Cochrane systematic reviews
BT (Wallace et al 2004); PV (Eustice et al 2002);
HR and TV (Ostaszkiewicz et al 2004 a,b)

• Meta-study using review methods for qualitative studies
to provide a synopsis and descriptive comparison
and contrast

• Selection and appraisal of primary research
  Meta-theory
  Meta-method
  Meta-data analysis

  Paterson et al 2001
Theoretical Foundations

- All conservative therapies
- Therapeutic focus on a programme of voiding
- Client cooperation for toileting is a prerequisite
- Differ from one another in their overall aim, pattern of toileting involved and degree of participation by client or caregiver
- In practice TV and HR used in situations where client is not always cooperative, although client cooperation is optimal for success
Terminology Conundrum

- Need to reconceptualise the theory underpinning BT, PV, HR, and TV, their mutual exclusivity and consequently terminology.

- Operational overlap in relation to terminology in the trials and studies reviewed across the systematic reviews. Difficulty whether to include or exclude studies from reviews.

- Clarification sought from lead investigators.

- Reasons for overlap or lack of clarity: Studies undertaken before standardisation of terms available, operational terms varied in the studies although they stated BT, PV, HR or TV used or stated used but insufficient detail reported in the written account to confirm this.
Terminology Conundrum

Further examples;

**BT** suggested to increase bladder capacity by prolonging voiding intervals (Hadley 1986) but not borne out in cystometric capacity testing (Dougherty et al 1998, Elser et al 1999)

**PV** has shown an increase in self initiated toileting which may reflect dependency on caregiver rather than behavioural change (Eustice et al 2002)

Need to explore cognitive mechanisms underlying **BT** and voiding programs, the role of Cognitive Behavioural Therapy also the implications of combined complex interventions in future trials
Current Cochrane reviews being undertaken

• **Toileting assistance programs for the management of urinary incontinence in adults (Ostaszkiewicz et al)**

  To determine the effects of toileting assistance programs for the management of urinary incontinence in adults.

• **Combined conservative interventions for urge, stress or mixed incontinence in adults (French et al 2010, protocol)**

  To determine whether combinations of conservative interventions reduce the number of people with UI compared against no treatment/usual care

  To determine their effects on subjective perceptions, severity or symptoms, QOL/symptom distress, satisfaction, cost, adverse events
Systematic reviews of the management of incontinence and promotion of continence in older people in care homes

Descriptive studies with UI as the primary outcome
(Roe et al 2011. JAN 67,2, 228-250)

Descriptive studies with factors associated with UI as primary focus
(Roe et al 2011. IJOPN 19 Dec 2011)

Intervention studies with UI as the primary outcome
(Flanagan et al 2012. Geriatr Gerontol Int. 12,4,600-11)

Intervention studies with factors associated with UI as primary focus
(Flanagan et al, under review)
Systematic reviews of the management of incontinence and promotion of continence in older people in care homes

• To identify empirical research for the management of incontinence, promotion of continence or maintenance of continence in older people in care homes

• Search conducted with no date limits up to 2009, then updated 2010

• Empirical studies that used quantitative or qualitative designs and methods that met inclusion criteria were included

• Standard techniques and methods for systematic reviews were used and narrative synthesis of designs, methods, findings and outcomes
Systematic reviews of the management of incontinence and promotion of continence in older people in care homes

Records identified from database search (n=181)
Records after duplicates removed (n=175)
Records and full text articles screened (n=174, 1 awaiting)

Full text articles assessed for eligibility (n=86 including 5 systematic reviews and 1 related paper to identify relevant studies)
Records and full text articles excluded with reasons (n=82)

Studies included in quality appraisal (86 to 68 primary studies)
Studies included in data extraction (n=42 intervention studies and 26 descriptive/observational studies)
Included studies

• **Descriptive studies**
  
  10 studies with UI as primary focus/outcome
  16 studies with associated factors/comorbidities or management approaches as primary focus/outcome

• **Intervention studies**
  
  33 studies with UI as primary outcome: of which 11 were RCTs
  9 studies with associated factors or management approaches as primary focus/outcome

Associated factors included economic data, skin care, exercise and mobility studies, staff quality and prompted voiding adherence, patient and family preferences, promotion of continence by the management of dehydration and incontinence
What did we conclude

• Use of incontinence pads and toileting programmes were the most common management approaches

• No studies attempted to maintain continence of residents in care homes. Preventive studies are warranted

• Basic management procedures including the use of toileting programmes and incontinence pads have proven to be successful in terms of reducing the frequency of incontinence, increasing the percentage of appropriate toileting behaviour, maintaining social continence and regaining continence for some
What did we conclude

• Incontinence in care homes is largely a care management issue which needs time and cost efficient staff management procedures to improve outcomes and ensure quality care is delivered and achieved

• Objective improvements are needed with long term continence as the primary focus of future trials

• The effectiveness of combined behavioural interventions within these populations for the management of incontinence in future trials is warranted

• Managing incontinence is also associated with promotion of exercise and mobility, staff quality, promotion of continence, institutional and personal costs
Conclusion

• Incontinence in frail older people can be successfully managed – using conservative approaches and continence regained, or social continence attained with use of dependent assistance and containment aids

• Assessment and diagnosis are essential to guide management

• Regular evaluation and reassessment are required

• Able to be undertaken in primary care - at home or care home

• MDT input is essential, as are committed staff

• Studies on maintenance of continence and prevention are warranted
Contemporary – present ‘In, out & what nurses want to shout about’ – Taster menu!

- Steve Miles – New RCN catheter guidance
- Professor Mandy Fader – Cochrane review on intermittent catheterisation
- Sunil Mathur – Catheter research

- Professor Francine Cheater – Implementing good practice in continence care
- Professor Dawn Dowding – A decision tool for the management of UI in women in the community

- Rona Agnew – Continence across continents
Contemporary – present ‘In, out & what nurses want to shout about’ – Taster menu!

- Jo Booth – Tibial nerve stimulation for bladder and bowel dysfunction

- Wendy Ness – Updated RCN guidelines for the management of lower bowel dysfunction

- Professor Julienne Meyer – My home project

- Amanda Cooksey & Mike Holloway – Dementia care
Thank you and I wish you all a successful and enjoyable conference

Any questions?

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