

Urinary continence care in Australian nursing homes

AUTHORS

Ping Yu

Assoc Professor, PhD
Director, Centre for IT-enabled Transformation
School of Information Systems and Technology
Faculty of Engineering & Information Sciences
University of Wollongong, Wollongong NSW Australia
ping@uow.edu.au

Victoria Traynor

Assoc Professor, RN, PhD
School of Nursing and Midwifery
Faculty of Science, Medicine & Health
University of Wollongong, Wollongong NSW Australia
vtraynor@uow.edu.au

David Hailey

Professor, PhD
School of Information Systems and Technology, Faculty
of Engineering & Information Sciences,
University of Wollongong, Wollongong NSW Australia
dhailey@ozemail.com.au

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KEY WORDS

urinary incontinence, assessment, care plan, practice management, nursing home

ABSTRACT

Objective

Exploring urinary continence (UC) assessment and management practices in Australian nursing homes.

Design

Mixed method using a questionnaire and interviews.

Setting

Five nursing homes in Australian metropolitan cities.

Subjects

Participants 121 staff: mostly female (91%) with a range of roles including personal care assistants (PCAs) (63%), enrolled nurses (ENs) (11%), registered nurses (RNs) (20%) and managers (4%).

Main outcomes measure(s)

Compliance with and perceptions about UC assessment and management.

Results

77% (n=71) of care staff (PCAs, ENs and RNs) were compliant with the UC management protocol of checking for wetness every 2 to 2.5 hours. Toileting time and frequency of changing continence aids varied between nursing homes. Perceptions about the accuracy of UC assessments and knowledge of an older person following UC assessment also differed between nursing homes.

Conclusion

Areas where UC assessment and management in nursing homes could be improved include identifying the voiding times of older people, compliance with care plans in management practice, and caregiver ability to assess the capacity of continence aids to absorb urine. Training for effective continence care in nursing homes needs to be enhanced.

INTRODUCTION

In Australia, over 180,000 older people live in nursing homes and 68% of these older people required urinary continence care (UC), including bladder management and assistance with toileting (Australian Institute of Health and Welfare 2011). The negative impact of urinary incontinence (UI) is reduced functional, psychological and social well-being, quality of life and increased risks of damaged skin, urinary tract infections and falls (Ostaszkiwicz et al 2012; Du Moulin et al 2008; Fonda et al 2005; Fultz and Herzog 2001). UI is more prevalent among individuals living with a dementia in nursing homes, with levels of cognitive impairment and immobility increasing the likelihood of UI occurring (Specht 2011). Direct costs of UC care include staff time to provide UC, continence products, laundering and barrier creams. Indirect costs include communicating with staff about UC care, documenting UC care, and attending training on continence (Frantz et al 2003). It was suggested that it takes a member of staff seven minutes to help an older person use the toilet, four minutes to apply barrier cream and seven minutes to change clothes with the addition of 9% of time from RNs in supervising PCAs to deliver a UC care plan (Frantz et al 2003).

Despite its impact and high prevalence, UI is not assessed nor managed effectively (Hawthorne 2006; Taunton et al 2005) and remains an under-studied area of healthcare research (Wagg et al 2008). The most commonly used strategies to promote UC in nursing homes are toileting assistance programs and the use of continence aids (Roe et al 2011). For these approaches to be effective, UC assessment needs to be accurate and appropriate. Screening, assessment, management and evaluation tools (Dowling-Castronovo and Spiro 2013a 2013b; O'Connell et al 2006) can be used to promote UC among older people living in nursing homes. These tools structure initial continence screening, the bladder chart/ diary, the bowel chart, full continence assessments, care plans and evaluations to monitor progress of UC interventions/ care plans. The screening forms should be completed with an older person within the first 48 hours of moving into a nursing home. The screening form is designed to establish whether a person has bladder and/or bowel problems and when further assessment is required. The bladder chart/ diary is completed during a three-day assessment and prompts staff delivering care to older people to document a person's voiding pattern at prescribed time points during 24 hours.

Thorough assessments using this evidence - based structured approaches can ensure UC management practices are effective for older people, including bowel management programs, habit retraining, social prompting and continence aid use. These UC interventions are well-defined but few studies have reported the effects of implementing these strategies for older people living in nursing homes. In particular, studies focusing on individuals living with a dementia are rare (Specht 2011; 2002). When UC assessment and management practices were observed in nursing homes in the United States of America (USA) it was found the staff implemented few structured approaches to UC assessment. Although taking an older person to the toilet every two hours was the prescribed intervention in UC care plans, this only occurred rarely with much more sporadic times used (Taunton et al 2005). In the USA nursing home care is funded using the Resident Assessment Instrument (RAI) (Medicare and Medicaid, 2013) and in Australia using the Aged Care Funding Instrument (ACFI) (Department of Health and Ageing 2013) which both use 11-15 care area assessment categories to define the needs of older people and determine the funding/cost of care. UC care is determined in the USA within the category of 'Bladder and Bowel' and in Australia within the two categories of 'Toileting' and 'Continence'.

While these structured approaches are well-defined, there is little information on how they are applied in routine practice. The objective of this study was to survey current UC assessment and management practices in Australian nursing homes.

METHODS

A cross-sectional study, consisting of a questionnaire survey and interviews, was conducted with care staff, consisting of personal care assistants (PCAs), Enrolled Nurses (ENs) and Registered Nurses (RNs). Five nursing homes in metropolitan cities of Australia participated. These were located in Sydney (home 1), Newcastle (home 2) and Melbourne (homes 3, 4 and 5). Convenience sampling was used to recruit participants.

The questionnaire was designed by the first author in consultation with a continence nurse and two RNs, all with extensive aged care experience. Three stakeholder consultation meetings were held to ensure content and face validity of the questionnaire. Questionnaire items consisted of demographic details, descriptions of UC assessment and management practices and the opinions of care staff about the effectiveness of UC practices. Opinions from care staff were generated from a seven point Likert scale, ranging from 1 (strongly disagree) to 7 (strongly agree). The questionnaires were distributed to care staff on visits to the nursing homes and collected on the same day.

Statistical analysis was undertaken on questionnaire responses using IBM SPSS Statistics 19. When data were normally distributed, ANOVA was conducted to identify significant differences between the sites. When no significant differences were found, the data were aggregated and presented with descriptive statistics for the total population; otherwise a post-hoc Tukey's test was conducted for between-site comparisons.

When data were not normally distributed, the Kruskal-Wallis test was conducted. If significant differences were found, the Mann-Whitney U Test was used for between-site comparisons. For data to be analysed using a non-parametric test, median and interquartile range (IQ) were presented for descriptive statistics. Pearson's Chi-square test was conducted to identify significant differences on the 'Yes or No' questions. Otherwise, data were aggregated and presented with descriptive statistics for the total population.

Additional information from care staff about their views and experiences of how UC assessment and management practices were implemented in nursing homes were generated from semi-structured interviews. Participants for the interviews came from homes 1 and 2. Content analysis was conducted on interview transcripts to generate an understanding about how care staff view UC assessment and management practices in nursing homes.

The study was approved by the institutional Human Research Ethics Committee, following agreement from each of the participating nursing homes.

RESULTS

There were 121 responses from the 230 questionnaires distributed to care staff (52.6% response rate) and 23 semi-structured interviews. There were no significant differences between the nursing homes in terms of participants' gender, age, job role, hours and shifts usually worked. The demographic profile of participants was similar to those in other studies (Martin and King, 2008). They were primarily female caregivers (91%) and most (63%) were unregistered PCAs. Other participants included ENs (11%), RNs (20%), managers (3%) and others (4%). Most (69%) of the participants worked part time, 17% were full time and 14% were casual employees. The UC assessment practices recommended by O'Connell et al (2006) were implemented in all five nursing homes.

Questionnaire responses

Frequency of checking for wetness within UC assessment ('check and change' intervention)

Shifts lasted eight hours and 66% of the care staff checked clients for wetness 3 to 4 times in a shift. 10% of them checked wetness more than 5 times (see table 1). The care staff in home 5 checked for wetness significantly more frequently ($p < 0.05$) than those in the other homes, who conducted checks at similar time intervals.

Table 1: Number of times a caregiver checked the wetness of an older person during a shift within the 3-day urinary continence assessment period

Frequency Times (N)	Homes 1, 2, 3 and 4 Percent (N)	Home 5 Percent (N)
0	7.2 (6)	11.1 (1)
1-2	16.9 (14)	0 (0)
3-4	66.3 (55)	44.4 (4)
5-6	7.2 (6)	11.1 (1)
7+	2.4 (2)	33.3 (3)
Total	100 (83)	99.9 (9)

Replacement of continence aids ('containment' intervention)

Details about when a continence aid was replaced were obtained from homes 1, 2 and 3. In homes 1 and 2, 26% (n = 31) and 52% (n = 27) of care staff, respectively, replaced the continence aid when it was wet (around 50% full). Significantly more care staff in home 3 replaced a continence aid when it looked soaked through (> 75% full) than those in homes 1 and 2 (96%, n = 28 vs 59%, n = 58, p < 0.05). In home 1, 36% of care staff (n = 31) changed a continence aid when requested. No caregivers did this in home 2.

Prompt for and frequency of toileting (bladder prompting intervention)

These aspects were investigated in homes 1 and 2. The proportion of care staff in home 2 who provided an older person with toileting assistance was higher than that in home 1 (55%, n = 28 vs 45%, n = 34, p < 0.05). Toileting activities were initiated by 48% (n = 30) of the care staff upon request; 40% (n = 25) followed the UC care plan and 24% (n = 15) provided toileting assistance at fixed times during a work day. One of the respondents provided assistance only after the other care priorities were met.

Perceptions of care staff about UC assessment and management practices

Perceptions about UC practices among care staff in their nursing homes were obtained from homes 1, 2, 4 and 5. Similar responses from these homes were received for 8 out of 13 statements (table 2).

Table 2: Caregivers' perceptions where there were similar responses from RACH

Statement	Number of respondents	Median (IQ)
Agreement with statement		
UC assessment produced information that improves my communication with other health service providers...	69	6.0 (2)
....or with co-workers	71	6.0 (1)
UC care plans give me useful information about the allocation of continence aids	26	6.0 (1)
Continence aids are allocated according to resident's UC care plan	27	6.0 (0)
Slight agreement with statement		
UC care plans for older people are up-to-date	71	5.0 (2)
Older people are provided with assistance according to their UC care plans	72	5.0 (3)
Information I got from the 3-day UC assessment was incomplete	70	5.0 (2)
Slight disagreement with statement		
UC assessment is not respectful to the older person	27	3.0 (3)

Significant differences among nursing homes (all $p < 0.05$) were found for five statements (table 3). The care staff in home 4 were less satisfied with the accuracy of information from the three-day UC bladder diary than those in the other three homes. They only 'slightly agreed' on understanding more about UC of an older person as a result of the UC assessment, compared with more positive responses from other homes. There were marked differences regarding the statement that UC assessment was easy to carry out, with agreement from two homes and slight disagreement from the others. While there were some differences among homes regarding understandability of information gained from UC assessment, and on UC care plans giving useful information about most appropriate toileting times, there was overall agreement on these items.

Table 3: The caregivers' perceptions about urinary continence assessment and management practices in four RACH.

Statement	Responses			
	Home 1	Home 2	Home 4	Home 5
Information I got from the current 3-day urinary continence assessment was accurate.	† ^a 5.0 (2) n = 29	^a 5.0 (2) n = 24	^a 4.0 (2) n = 7	^b 6.0 (0) n = 11
It was easy to understand information from the 3-day urinary continence assessment.	^a 5.0 (2) n = 29	^b 6.0 (1) n = 24	^{ab} 5.0 (4) n = 7	^b 6.0 (1) n = 11
I understand more about the urinary continence of the older person as a result of the 3 day urinary continence assessment.		^a 6.0 (1) n = 27	^b 4.0 (2) n = 7	^{ab} 6.0 (2) n = 11
Urinary continence assessment was easy to carry out.	^a 3.0 (3) n = 28	^b 6.0 (1) n = 26	^{ab} 3.0 (4) n = 5	^b 6.0 (1) n = 11
Urinary continence care plans give me useful information about the most appropriate toileting times for the older person.		^a 6.0 (0) n = 26	^b 5.0 (3) n = 5	^{ab} 6.0 (2) n = 11

The three numbers presented in a cell represent: median (IQR) and n: number of participants. Measurement scale: 1 – strongly disagree; 7 – strongly agree. †The same superscript letters at the front of each number in a row suggest that the responses between the two RACH were similar. The different superscript letters at the front of each number in a row denote the answers from the different RACH were significantly different.

Interview responses

The following themes were generated from the interviews.

The challenge of continence assessment

Eight participants agreed that timely UC checks for an older person were not feasible in practice. Accurately identifying the exact time of a voiding event was also a challenge. Upon checking, there might be no sign of a UI event but a moment later the person might be wet. It was also suggested that the information captured in a UC assessment did not always include details about fluid intake and urine output, thus making the assessment less accurate and comprehensive. Some care staff considered manual checks, on the strip of a continence aid, to detect a wet event were intrusive to the privacy and dignity of older people.

Six participants saw the challenge of UC management as 'keeping them dry'. Two managers and one RN mentioned the challenges of maintaining the dignity of older people who are totally incontinent and of providing timely updating of the UC care plan to reflect changing UC care needs. Five PCAs saw time management as a challenge for effective UC care.

Information for care staff on UC

The information recorded in the bladder chart included fluid intake, frequency of visits to toilet, volume of urine voided and the condition of the continence aid used (e.g. wet or soaked). One RN explained:

"We would do a wet-dry chart and a fluid input and output chart as well. We just usually write down if the pad was slightly wet, or half wet or fully wet."

RNs developed the UC care plan based on the assessment information about the voiding patterns. Re-assessment was conducted when the UC or health of the older person deteriorated. Signs of deterioration included losing weight, insertion of a catheter or increased wetness in-between visits to the toilet or UI episodes. As one RN said:

"If any changes happen, like they have increased wetness or require more pads or something changes like they are catheterised, then we update their care plan..."

Scheduled toileting

One manager explained the common toileting schedule in nursing homes: *"...scheduled toileting tends to happen at various times. People are always toileted when they get up in the morning, it might be before or after breakfast. Generally it will be before lunch again and after lunch and then before dinner and after dinner and before going to bed. These will be the most common times for toileting to happen."*

One PC said: *"A lot of residents [sic] can voice if they want to go to the toilet, or they'll put their hand up and signal you. Sometimes they're just restless, so you can observe their behaviours."*

DISCUSSION

This study generated results from five nursing homes in Australia about the views and experiences of care staff about UC assessment and management practices. The results provided insight into how UC assessments and management practices were undertaken. They indicated some practice gaps for UC care that have been reported in the USA (Taunton et al 2005).

Care staff reported being satisfied with the information generated from UC assessments and believed it facilitated communication with outside healthcare providers and among co-workers. It also helped in the development of UC care plans. This was contrary to the findings of a USA study in which assessments were rarely structured and seldom informed care activities (Taunton et al 2005). Challenges for UC assessment included complying with the specified timeline for checking UC, and defining the exact time lapse between voiding events and checks for episodes of UI. Participants also found that fluid intake and urine output were not always measured accurately.

The questionnaire results showed that the two most important aspects of UC management which need attention were toileting time and frequency of changing continence aid. Scheduled voiding, with toileting assistance provided every two to three hours, has been shown to be effective because a voiding event commonly occurs every two hours (Ostaszkievicz et al 2010). Providing toileting assistance at specific times was considered a positive strategy for effective UI management (Jirovec and Templin 2001). Although scheduled toileting based on toileting pattern was the purpose of UC assessment, only 40% of care staff reported providing toileting assistance according to the UC care plan.

The second most common strategy in UC management was providing toileting assistance when requested, which promoted individual autonomy and person-centred care; this was practiced by only about half of the questionnaire participants. This should be further promoted through improvement in the accuracy of UC assessment and management, and better time management.

Care staff were satisfied that UC care plans provided them with useful information about the allocation of continence aids. Once leakage from a continence aid was visible, the person was immediately at risk of

experiencing wet clothing, wet bed linen and skin excoriation. However, 26% of care staff in home 1 and 52% in home 2 changed a continence aid before it reached the full capacity (75% full), wasting continence aids. These results suggested that training for effective UC care needs to be enhanced in nursing homes.

There were limitations to this study. The results were based on self reports about UC assessment and management practices by care staff and their perceptions might have differed from actual practices. The response rate to the questionnaire was limited and it was not possible to cover all survey items in every nursing home. The areas of UC assessment and management explored in this study were mainly conducted by unregistered PCAs. Information about UC care collected from other sources, such as other healthcare providers, older people or family carers were not included. but we know from another review study that when UI occurs it causes a detrimental effect on the quality of life and psychological well-being of older people. Nevertheless, this report on perceived UC assessment and management practices in Australian nursing homes provides insight into priority areas for further UC care education and practice development.

CONCLUSION

This study found that there were areas where UC assessment and management in nursing homes could be improved. These included identifying the voiding times of older people, compliance with care plans in management practice, caregiver ability to assess the capacity of continence aids to absorb urine and time to change aids. The UC needs of older people were met primarily by scheduled toileting or upon request for UC assistance. Further research into strategies for effective caregiver education and practice development to address the identified UC care deficiencies is necessary.

IMPLICATIONS FOR PRACTICE

This study suggests that accuracy of UC assessment needs to be improved in nursing homes. Training and practice improvement is yet to be promoted to improve awareness among caregivers and older people about individual UC care needs and to provide person-centred UC care.

KEY POINTS

- The views and experiences of care staff about UC assessment and management practices in five nursing homes in Australia were reported.
- Most care staff conducted continence assessment in compliance with the guideline.
- There were difficulties for UC assessment in complying with the defined timeline for checking, and identifying the exact time lapse between voiding events and the checking for episodes of UI.
- Training needs to be provided on toileting time and frequency of changing continence aids.

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