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Iatrogenic incontinence in older people and people living with dementia: potentially modifiable contributing factors within institutional cultures of care

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ABSTRACT

This discussion paper illuminates pervasive systemic inequalities for older people and people living with dementia who require support to maintain continence or manage incontinence in institutional care settings. Utilising an expert-led narrative synthesis approach and drawing on a large body of research, we identify five potentially modifiable causes of iatrogenic incontinence associated with the organisation and delivery of care in these settings. We call for greater attention to safeguard the continence of older people and people living with dementia as a welfare issue and human rights issue.

Keywords: cultures of care, dementia, hospital, iatrogenesis, incontinence, long-term residential aged care homes, new-onset incontinence, older people.

Background

The public rightly expects high quality dignified care for all, including older people and people living with dementia (PLWD) who require care within institutional care settings including in hospitals and long-term residential aged care homes. However, in many countries, care quality within these institutions falls far below the public's expectations, particularly the prevention and management of urinary incontinence (UI). Internationally, a series of public enquiries, government reports, and audits continue to identify people who need support to maintain continence or to manage incontinence and who experience poor care quality within institutional settings.[1–13] This body of work published over the past two decades establishes that pervasive systemic inequalities exist in the continence care of older people and PLWD. Importantly, this provides insights into entrenched institutional cultures of care, identifying that the organisation and delivery of continence care within these settings is not designed to promote continence or prevent UI in older people and PLWD.

Older people and PLWD who are continent at admission to a hospital are at significant risk of developing new onset UI during a hospital admission. Between 7% and 36% of hospitalised older people develop new onset UI prior to discharge.[14–19] These older people were continent prior to admission and developed UI during their admission. This high rate can be compared to inpatient falls, which in the UK have been reported at 2.7% (n = 247,000)[20] and 5–6% for hospital-acquired pressure injuries,[21] which are significant metrics used to establish hospital-acquired injuries in the National Health Service,[22] and in turn their prevention, are established key indicators of care quality within UK hospitals. New onset UI also affects many people in long-term residential aged care homes. An analysis of data from 2719 medical records found 13% of people admitted to these homes in Switzerland developed UI within 12 months of being admitted, increasing to 24% by 24 months.[23]

The personal, social, organisational, economic, and environmental impacts of UI for older people and PLWD are significant.[6,7,15,24,25] People living in long-term residential aged care homes with UI have a lower quality of life,[26] an increased risk of falling,[27–29] developing functional decline,[30] incontinence-associated dermatitis (IAD),[31,32] and dying.[33] Acquiring UI in hospital increases the length of a person's hospital admission, i.e. 6.4 days compared to 4.4 for patients who remain continent,[34] and increases their care needs after

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hospital admission due to functional decline,[19] placing them at a greater risk for discharge to a long-term residential aged care home.[35,36] Follow-up studies indicate that for some hospitalised older people, UI becomes an established condition.[16,17] Lakhan *et al.*,[17] found that hospitalised older patients with newly acquired UI did not return to their 'premorbid function' (p. 2007). In a prospective cohort study of 282 hospitalised older adults, Zisberg *et al.*,[19] reported the quality of continence care was a key factor directly related to increased functional decline following discharge.

At a system-level, the loss of continence in older people and PLWD in these institutional care settings has long-term economic and environmental impacts, increasing the need for care and the associated costs, while also increasing the aggregate need for single-use body worn disposable absorbent incontinence products (hereafter termed 'pads') for this population. In Organisation for Economic Co-operation and Development countries alone, adult pads are responsible for approximately 5% of municipal waste, contributing to global warming and climate change through incineration and landfill.[37] As such, the loss of continence in institutional care settings has adverse impacts on the long-term economic and environmental sustainability of health and social care systems.[38]

Aim

The aim of this article is to provide evidence about potential modifiable factors associated with the organisation and delivery of care that contribute to what we term 'iatrogenic UI'. While typically, the term 'iatrogenic' is used to refer to medical interventions that inadvertently cause harm and which have a cascading effect on patients' health and wellbeing (cascade iatrogenesis); in the context of iatrogenic UI, we extend the term 'iatrogenic' to encompass the immediate and cascading harms (including increased deterioration, dependency, institutionalisation, and death) caused by the organisation and delivery of routine continence care.

Methods

This discussion paper utilises an expert-led narrative synthesis approach,[39,40] which draws on the authors' expertise and contributions. This expertise encompasses the following topics: quality of continence care for frail older people; the management of incontinence in long-term residential aged care homes; a dignity-protective approach to continence care (JO); care ethics and sustainable continence care (TV); and the continence care of PLWD within the acute hospital setting (KF). An initial scoping exercise was undertaken to address the question about 'what is known about the potential modifiable factors associated with the organisation and delivery of care that contribute to UI for older people and PLWD in acute and long-term residential aged care homes?'. The authors are familiar with and have contributed to this literature, which established the initial articles to be included. In addition, two databases (PubMed, Google Scholar) were searched from database inception to December 2025 for additional citations that focused on, or contained an element relating to each of the following inclusion criteria: (a) people living with dementia, Alzheimer's disease, cognitive impairment; (b) acute and long-term care settings; (c) continence/incontinence; and (d) care practices related to continence/incontinence. We also used snowballing by examining reference lists to identify any studies the search may have missed and performed a targeted search looking for high quality studies utilising methodologies that might present a different perspective or challenge to our own contributions to the field. This process also included a quality check to remove poor quality articles or those outside the specific focus of this review.

Thematic synthesis was then carried out. The findings of the articles were summarised into a number of broad, descriptive themes that captured and described patterns across all the articles. Analytic themes were created to synthesise the findings across the studies to develop an initial broad thematic analysis. An iterative process was utilised to construct the themes, with the team coming together to discuss, interrogate, and critique the themes to ensure they accurately represent the field of research. These were then developed by the expert team into descriptive maps to contextualise the thematic findings, which were then synthesised into a conceptual framework to provide evidence about potential modifiable factors associated with the organisation and delivery of care across acute and community settings that contribute to UI. These five potentially modifiable factors that contribute to iatrogenic UI in institutional care settings are presented below.

Results

We identify five potentially modifiable factors that contribute to iatrogenic incontinence in institutional care settings. These are:

1. The default use of pads as standard care
2. Timetabled and routinised continence care
3. Limited screening and assessment of incontinence
4. Limited support to use the toilet
5. Under-resourcing for prevention strategies.

The default use of pads as standard care

The use of pads in hospitals and long-term residential aged care homes is high. A recent study of one UK hospital

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identified almost two-thirds of hospitalised older people (over 75 years) were using pads, with over half of this use assessed as inappropriate.[41] In long-term residential aged care homes, 92% of residents use pads.[42] Several researchers identify an over-reliance on these products in these institutional care settings.[15,19,41,43–48] The consequences of indiscriminate, inappropriate and routine overuse of pads are significant as they are associated with new onset UI,[19] IAD,[49] urinary tract infections[46] and falls.[50]

In a large scale ethnographic observational study of the UK hospital setting, Featherstone *et al.*,[44] coined the term 'pad culture' to describe the default use of pads as standard care. In their study, the staff describe the routine use of pads in the care of PLWD and older people as a precautionary strategy, with the rationale to provide safeguards, ensure containment, and prevent 'accidents' or incontinent episodes. However, this 'just in case' strategy for pad use led to an unacknowledged culture within hospital wards where it was not just expected that these patients could use the pad in an emergency, but rather that they should remain in bed or at the bedside and use the pad as a matter of routine, regardless of their mobility and function. Research by Omli *et al.*,[46] and Ostaszkiewicz *et al.*[47] also reveals a discrepancy between the use of pads and the actual severity and frequency of UI, suggesting an indiscriminate approach to decision-making about their use.

Timetabled and routinised continence care

Recent research by Featherstone *et al.*,[44] and Northcott *et al.*,[25] identifies that the classification of a PLWD as incontinent, or as requiring continence care at the bedside during an unscheduled admission to hospital, is associated with the care environment, with cultures of care and continence care routines promoting pad use as standard care leading to iatrogenic UI. Their widespread and standard use transforms continence care, replacing individualised support that enables independence with timetabled continence care routines of 'pad checks', which 'involved checking for the smell of urine or faeces on the person, a physical examination using touch or using sight to check if a person's pad had been used', informing the need for pad changes, cleaning rounds, and personal care at the bedside. These continence care routines are reduced to tasks that can be carried out by care assistants in ritualistic order from bed-to-bed fitting into a wider organisational timetable of bedside care, with continence support deprioritised to a timetabled privilege, with older patients and PLWD required to ask for permission from the nurse or care assistant to leave the bedside and use the bathroom, even if continent or mobile.[51]

Similarly, a study using grounded theory to describe and explain the context that affects continence care in long-term residential aged care homes in Australia found continence care was characterised by a reliance on pads to contain, conceal, and control incontinence.[52] Continence care was timetabled over the 24 h period, with residents being checked regularly to see if their pads were wet or soiled and in need of changing. While multiple factors underpinned these routine practices, staff claimed these practices and pads protected residents' dignity.

Limited screening and assessment

The International Consultation on Incontinence recommends that the management of UI in frail older adults be individualised and informed by the person's goals of care, treatment preferences, and estimated remaining life expectancy, as well as the most likely clinical diagnosis.[53,54] Consistent with this understanding, quality continence care is characterised by screening and assessment to determine the correct diagnosis and the subsequent correct treatment, which could be surgical, pharmacological, conservative, or a combination of approaches. However, medical histories of hospitalised older people typically lack information about their bladder and bowel function and continence care needs.[47] Audits of continence care in the UK report low levels of continence assessment for older patients compared to younger patients,[10–13] with less than half being assessed to identify the underlying cause of their UI.[11] Only 32% of hospitals audited had a written policy about incontinence, 49% had a structured training programme, and 35% performed a regular audit.[13] Incontinence is also under-recognised and undertreated in long-term residential aged care homes. Harrison *et al.*[55] found only 54% of residents with UI from 815 long-term residential aged care homes in the USA had a continence care plan. At the same time, having a continence care plan was associated with higher resident health.

For PLWD, continence screening and assessment processes are lacking across all care settings according to a recent policy review in the UK.[24] The review identified widespread deficits in the recognition, assessment, and management of incontinence for PLWD. Added to this is a lack of evidence-based interventions to support staff to achieve individualised continence care for PLWD in practice.[56]

A lack of screening and assessment results in UI being underdiagnosed and undertreated. However, this situation could be addressed with the use of standardised screening and assessment tools that meet international best practice standards, and which are contextually appropriate for different institutional care settings.

Limited support to use the toilet

A timely response by healthcare professionals and care providers to patient requests for support with bladder or bowel control is particularly important. A study from the USA found the quicker staff were in responding to a long-term care resident's request for help with voiding, the more satisfied residents were with the organisation.[55] This finding should

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be incorporated into quality systems and actioned by providers of long-term residential aged care homes.

Featherstone *et al.*,[44] and Northcott *et al.*,[25] found healthcare staff deprioritised continence care that enables older people and PLWD to use the toilet and maintain their independence. This was often in order to meet the wider organisational pressures and timetables of care. Moreover, unless a PLWD was able to clearly communicate verbally, healthcare staff were often unable to recognise their continence needs.[44] A scoping review on the unmet care needs of older patients[57] identified eight studies that found older patients' needs related to toileting were poorly met. Furthermore, using the MISSCARE Survey to measure patients' perceptions of unmet needs during hospitalisation, Kalisch *et al*. reported patients' requests for help to the bathroom (toilet) were missed 10.1–10.9% of the time.[58]

Within institutional care settings, the widespread availability and acceptance of pads creates a disincentive to assist patients to the toilet because this means this support can be delayed, and instead the person and their bladder and bowel care needs can be contained at the bedside, while other routines of bedside care perceived by ward teams as having more organisational value are prioritised.[25,44] This finding aligns with a large study by Thomas *et al.*,[48] who reported a reliance on the use of pads in UK stroke units, which operated as a disincentive for providing toileting assistance to patients with UI.

These cultures of care result in older people and PLWD having no choice but to use pads because they do not have timely access to the toilet. The lack of access to toilets for older people and PLWD in institutional care settings is systemic. Both the Mid Staffordshire Public Inquiry[4] in the UK and the recent Royal Commission into Aged Care Quality and Safety in Australia[9] took evidence from multiple witnesses who reported a lack of assistance for older people and PLWD to maintain bladder and bowel control. Witnesses to the Mid Staffordshire Public Inquiry[4] reported that older patients 'had to relieve themselves in their beds when they [were] offered no help to get to the bathroom. Some were left in excrement stained sheets and beds'.[4] Witnesses to a House of Lords, House of Commons Joint Committee stated that continence care for older people in hospitals lacked privacy, dignity, and respect and 'neglect of proper hygiene care or continence care resulting in individuals left lying in their own urine or excrement', with 'people not being allowed to use the toilet in private'.[3] The Australian Royal Commission into Aged Care Quality and Safety's Final Report[9] highlighted, 'terrible examples of substandard incontinence care'; 'some residential aged care providers unintentionally contribute to incontinence by adopting flawed approaches to its management'; 'staff members do not have the time needed to assist residents to go to the toilet in a timely manner'; and 'too often there is a routine use of incontinence pads to manage workload'. The Commissioners stated, 'not only does this risk adverse health outcomes, including creating or exacerbating incontinence, it impacts on older people's dignity, quality of life and wellbeing' (vol 1., p. 70).[9]

A recurrent theme within the UK Patients Association review of patient and families concerns about hospital care for older people and PLWD included reports of patients being told to 'wet the bed', delays in assisting people to go to the toilet, and delays in help for continence urgency, leading to falls when patients tried to get out of bed, distress, and incontinence.[8] A UK Department of Health and Social Care public survey identified support for continence and toileting, and a dissatisfaction with toilet facilities within hospitals, were key concerns.[1]

Under-resourcing for prevention strategies

Under-resourcing to support prevention strategies in long-term residential aged care homes is an established phenomenon.[59] Staff consistently cite understaffing as the main reason they are unable to provide aged care residents with toileting assistance at rates that match residents' needs,[52,60] i.e. to maintain or optimise residents' continence.

While there is evidence that a higher number of staff[60] and a higher ratio of Registered Nurse to residents[61] are significantly associated with better resident outcomes related to UI in long-term residential aged care homes,[62] there are no contemporary data to identify the staffing levels required to maintain or optimise residents' continence. What we do know; however, is that the practice of caring for a person who has physical or cognitive support needs in order to reach and use the toilet is complex care and requires time and skill. Indeed, the time to deliver this care ranges from 11 to 33 min, depending on the level of support a person requires.[48] This contrasts with the time required to check and change a person's pads, which is approximately 5.5 min.[63]

It is also noteworthy that an increase in the number of staff or the number of Registered Nurses alone will not necessarily result in improved continence care. Temkin-Greener *et al.*,[64] found better resident outcomes are significantly influenced by how staff in long-term residential aged care homes worked together. Stronger teamwork, consistent assignments, and staff cohesion are significantly associated with a lower odds of residents having UI (OR = 0.924; $P < 0.001$).

In hospitals, the impact of staffing levels is also equally complex and nuanced. While there is clear evidence of an association between nursing staffing and quality of care in hospitals,[65,66] there is a lack of evidence about the association between staffing and the quality of continence care specifically. Findings from the ethnographic research led by Featherstone *et al.*,[44] and the grounded theory research led by Ostaszkiewicz[52] indicated staff aspired to provide high quality continence care but feel constrained by organisation priorities. However, based on 180 days of ethnographic observational data that included a range of institutions, geographies and patient demographics (within six wards in three hospital sites across England and Wales),

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Featherstone *et al.*,[44] also identified that an increase in the number of ward staff does not necessarily translate into care practices that prevent UI. Although the staffing, teams, technologies, expertise, and interventions to support PLWD varied across hospitals and across wards within the hospitals, the organisation and delivery of continence care, the prominence of 'pad' technologies, and the 'pad cultures' identified, remained relatively stable as embedded practices of everyday bedside care for PLWD.

Discussion

In this paper, we identified and described five factors that potentially contribute to iatrogenic UI in hospitals and long-term residential aged care homes, which we argue are deeply rooted but have thus far been invisible within established cultures and routines of care for older people and PLWD, and that we claim are underpinned by a social and physical environment that presumes incontinence, i.e. ageism. First described by Mitteness and Barker in 1995[67] in the context of incontinence in older people, ageism suggests why pads are used as default standard care; why continence care is timetabled and ritualised; why institutional care settings place little clinical significance on the condition in terms of screening, assessment and prevention; why older people and PLWD receive inadequate assistance to use the toilet; and why prevention strategies to support this patient population are under-resourced.

A diagnosis of incontinence can have severe physical, psychological, economic, and social consequences for older people, PLWD, and their care partners and families,[68] including the loss of independence and premature admission to long-term residential aged care settings.[35,36] Environments that presume incontinence in older people and PLWD limit the person's treatment opportunities. Despite the importance of rehabilitation to improve outcomes, being classified as incontinent can limit treatment opportunities for PLWD, with rehabilitation typically viewed as 'inappropriate'.[69] Thus, iatrogenic UI is a factor that contributes to deconditioning of older adults and PLWD, thereby further increasing care dependency. In contrast, incontinence experienced by other groups is seen as treatable, with effective conservative, pharmacological, non-pharmacological and surgical interventions available.

Ethnographic and grounded theory research indicates PLWD and older people who experience an episode of incontinence and who require intimate care often experience high levels of distress.[25,70,71] Similarly, restricting them from exercising their right to use the toilet is likely to trigger rejection of care behaviours, as is providing continence care that is interpreted as intrusive. If the intimate nature of the caregiving interaction is poorly managed, it can escalate into power struggles over order and cleanliness, resulting in conflict.[70] Poorly managed incontinence is one of several factors that could increase the risk of older people and PLWD experiencing abuse.[72]

Iatrogenic UI constitutes a threat to the dignity of PLWD and older people. However, this threat often goes unrecognised or is tolerated and accepted. Urinary urgency and the inability to communicate the need for support to go to the bathroom, exacerbates this distress. Incontinence leads to interactions that are far more personally invasive than if the person had been supported to the toilet (the undressing and exposure of the body and the cleaning of genitalia, clothing and bedding), invasiveness which routinely creates significant distress in the person, and which, in hospital occurs in the relatively public space, hidden only by a thin curtain or screen. If staff interpret the distress caused by such discomfort, exposure and intimate care as a feature of a person's dementia, this can lead to the person requiring further supervision such as one-to-one care, reinforcing their containment at the bedside and the further diminishing the person and their autonomy.[25]

We argue that the cultures of care that accept UI for older people and PLWD in hospitals and long-term residential aged care homes is part of a larger problem of the cultural acceptance of missed fundamental care for this population. Feo *et al.*,[73] defines fundamental nursing care as 'actions on the part of the nurse that respect and focus on a person's essential needs to ensure their physical and psychosocial wellbeing. These needs are met by developing a positive and trusting relationship with the person being cared for as well as their family/carers' (p. 2295).[73] Continence care is a core part of providing patients with physical fundamental care.[73] The provision of fundamental care in hospital wards is deprioritised over other routine timetabled bedside care,[74] even when we know that being able to access timely support to maintain one's sense of dignity and autonomy is an important personal and societal value.

The risk of iatrogenic UI can be reduced in long-term residential aged care homes with appropriate individualised care that focuses on interventions to improve the person's ability to reach and use the toilet. Specifically, two systematic reviews highlight the importance of creating a physical environment that optimises the person's continence and by implementing toileting assistance programmes in combination with functional mobility training in long-term residential aged care settings.[75,76]

Iatrogenic UI in this setting could also be minimised by improving processes for the identification and assessment of UI. This would in turn provide staff with information about when to use pads, how many and what type. It would also assist medical staff to better identify and treat potentially preventable medical causes. These screening and assessment processes could be augmented with the use of sensor devices designed to identify the volume of urine in a person's incontinence pad.[77]

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To the best of our knowledge, there is only one randomised controlled trial of a conservative organisational intervention aiming to prevent or reduce rates of UI for older people and PLWD in hospital settings. This three-arm, parallel, open, exploratory, pragmatic, cluster randomised controlled trial conducted in hospitals in the UK found systematic voiding programmes were effective in reducing rates of UI post-stroke, particularly for patients with urge and stress UI.[48] The voiding programme consisted of bladder training and pelvic floor muscle training for patients who were cognitively able and prompted voiding for patients with cognitive impairments. Moreover, a process evaluation showed this intervention increased staff awareness of patients' continence care needs and outcomes.

It should be noted that individualised continence care that protects the dignity and independence of older people and PLWD in institutional settings takes time and resources. Investing both in adequate number of staff and their training in continence care and organising the routines of bedside care to support continence and toileting practices may prevent iatrogenic UI. These measures could; however, be cost-effective, since the prevention of iatrogenic UI would reduce the significant indirect costs that occur from deconditioning such as preventing further care dependency and institutionalisation. It would also reduce the environmental impacts of care, by reducing the need for single-use incontinence pads as the routine continence care practice for PLWD. The five factors contributing to iatrogenic UI identified and discussed in this paper are severely under-recognised, and continence care is not adequately understood as both fundamental and essential for improving the quality and humanity of care that older people and PLWD receive from our health and social care systems.

Conclusion

Safeguarding the continence of older people and PLWD is both a welfare issue and a human rights issue.[78] There is a significant gap between the policies and standards that promote the rights of older people and PLWD and the routine practices and cultures of care in terms of the delivery of quality care for older people and PLWD more broadly within hospitals and long-term residential aged care homes. Continence care and the prevention of incontinence in older people and PLWD should be a priority within health and care policies to support independence, to protect human rights, and to protect the environment from the excessive use and disposal of pads. Iatrogenic UI is by definition preventable. It is time to tackle the systemic inequalities in the continence care many older people and PLWD experience in institutional settings.

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