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Recent insights into pharmaceutical treatments for underactive bladder: a scoping review of recent studies
Charlotte Phelps, Sarah Tynan, Christian Moro

Did you know... occupational therapists assist in assessment and management of continence across the lifespan?
Susan Brandis



continence **NZ**

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Call for Papers

The *Australian and New Zealand Continence Journal* seeks articles and original research papers from people practising and researching the management and treatment of incontinence and continence health promotion.

Do you need topic ideas? A variety of topics are possible and include, but are not limited to: outcome studies, aged care, paediatrics, pregnancy and childbirth, novel drug therapies, reviews of devices, either surgical or non-surgical, assessment articles, literature reviews of continence-related topics, home and community care issues and successes, men's health, nursing management, physiotherapy management, support by other allied health disciplines (including occupational therapy and social workers), the psychological impact of living with incontinence, ethical issues, cultural issues and collaborative approaches to care.

Articles may be papers for peer review, clinical updates, case studies or evaluation of programs.

To discuss topics or for assistance in the preparation of papers and articles, please email journal@continence.org.au

EDITORIAL

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It is with great pleasure that we present this edition of the Australian and New Zealand Continence Journal (ANZCJ). Our first article, *Recent insights into pharmaceutical treatments for underactive bladder: a scoping review of recent studies*,¹ outlines advancements and updates from the published literature within the last five years. I would like to thank Dr Jenny Kruger, from the University of Auckland, for acting as the editor of this article and overseeing the review process.

The second article in this edition, *Did you know... occupational therapists assist in assessment and management of continence across the lifespan*,² provides an insight into the various roles that occupational therapists have in regard to continence management. Continence issues impact patients and their families, and a wide variety of health professionals are involved in continence management.

Following the occupational therapy article by Dr Susan Brandis,² we are delighted to invite professionals and all people who manage continence in any way to share their insights. To accomplish this, we have added three new submission types that we now accept under our segments section. The three new segments will be double-blind peer-reviewed, 800-1200 words long and have at 8-12 references.

1. **Did you know...** This segment covers interesting things related to continence that the community of nurses, doctors, physiotherapists, occupational therapists, and other health professionals who read the journal might not know. It might be something you have just discovered, or something you have known about for a long time that you are always surprised people don't know about.

2. **What I learned about...** This segment can cover anything you have recently discovered, it could be from a book, a conference, a training course, or even a discussion you have had.

3. **Have you heard...** This segment is any news related to continence, including upcoming events, new research released, new services available, and new products related to continence.

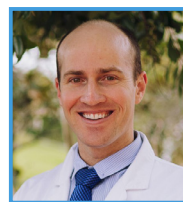
We have updated our [Author Guidelines](#) to give more detail on submission requirements. With the addition of these three new segments to our existing submission types, the ANZCJ increasingly presents an excellent avenue for the publication of all types of continence research. Articles published in the ANZCJ are available online as full 'diamond open access', with no cost to authors or readers. Each article is allocated an individual Digital Object Identifier (DOI number), to

assist with referencing and tracking, and listed across several databases. If you are a first-time author, our reviewing and editorial teams can offer guidance, feedback, and support to assist in the process.

Performing and publishing research not only helps our community with increased knowledge and insights, but also advances the mission of the Continence Foundation of Australia and Continence New Zealand to promote bladder and bowel health and eliminate the stigma and restrictions of all aspects of incontinence.

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2. Brandis S. Did you know... occupational therapists assist in assessment and management of continence across the lifespan. Australian and New Zealand Continence Journal 2024;30(1):11-14.



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Recent insights into pharmaceutical treatments for underactive bladder: a scoping review of recent studies

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ABSTRACT

Underactive bladder is a relatively prevalent condition, yet there is only limited research into its diagnosis, treatment, and management. This has increased interest in researching novel treatments for underactive bladder and enhancing understanding of the underlying mechanisms of its presentation. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews was followed as the guiding outline. An *a priori* protocol was developed prior to the commencement of any searching or database assessment and published online on the Open Science Framework, after which the PubMed database was searched for articles published over a five-year period from 1 April 2018 to 1 April 2023. Thirty records were identified, with eight included in the scoping review. Most studies were funded by industry, presenting the risk of considerable bias in study design or reporting. Overall, in the last five years, there have not been any new or upcoming treatments that present a consistent and evidence-based ability, across multiple articles, to alleviate underactive bladder. However, research is ongoing, and some receptor systems may hold some potential to assist in the prevention of the disorder.

Keywords detrusor underactivity, lower urinary tract symptoms, PRISMA, bladder dysfunction, urinary bladder

Although parasympathomimetics are often presented as the first-line pharmaceutical treatment option for UAB, the evidence supporting their success is often lacking.⁴ As such, there is a continued need to review and summarise advancements in the field to identify upcoming or alternative treatments and expand knowledge of underactive bladder treatments.

The prevalence of lower urinary tract symptoms (LUTS) associated with UAB is approximately 9–28% in the adult population,⁵ and this generally increases with age. Evaluations for non-neurogenic LUTS detected UAB in up to 28% of males aged under the age of 50 years, and 48% of those over the age of 70 years.⁶ Similarly, UAB was detected in up to 45% of females aged over 70 years.⁶ Furthermore, DU has been attributed to both myogenic and neurogenic aetiologies and may no longer be exclusively associated with the aging population.⁷

The absence of DU pathogenesis research corresponds to current ineffective treatment options for UAB.⁸ Besides parasympathomimetics, treatment options include surgery, pharmacotherapy, intermittent catheterisation, and conservative methods.⁹ Pharmaceutical treatments include a combination of alpha-adrenergic receptor blockers to reduce outlet obstruction pressure through decreased urethral sphincter tonicity and drugs that promote detrusor contractility, such as cholinergic agents.⁸ Muscarinic agonists (bethanechol) and cholinesterase inhibitors (distigmine) in combination with alpha-blockers, or prostaglandin E2 and acotiamide, as separate

INTRODUCTION

Underactive bladder (UAB) is a lower urinary tract symptom complex characterised by slow urinary stream, hesitancy, and straining to void.¹ The symptoms of UAB are often associated with observations of detrusor underactivity (DU), which is the weakening or shortening of detrusor muscle contraction resulting in the incomplete or prolonged emptying of the bladder.² Symptoms of nocturia and frequency are also common complaints associated with UAB, as a result of incomplete emptying and urinary retention.^{2,3}

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medications, are used for bladder outflow resistance and to increase post-void residual volume (PVR).^{8,9}

However, the efficacy of muscarinic agonists for DU has not been supported by recent literature, due to limited improvement, as well as limited data supporting the continued use of parasympathomimetics for bladder health.^{4,9} In addition, cholinesterase inhibitors may have adverse side effects such as faecal incontinence, diarrhea, and urination,⁸ affecting compliance rates as patients are less likely to continue prescribed medication. A recent systematic review and meta-analysis assessed the effectiveness of parasympathomimetics for the treatment of UAB and reported a paucity of evidence with short follow-up periods to support their use. This highlighted the need for well-controlled future trials to further warrant their use.⁴ The European Association of Urology has emphasised the discontinued use of parasympathomimetics for UAB due to inadequate research and potential side effects, which must be considered for patient compliance.¹⁰ Although there is increased occurrence of UAB with ageing populations and an increase in clinical prevalence, UAB and associated DU are primarily unrecognised and, subsequently, under-researched.¹¹

REVIEW QUESTION

With an increasing prevalence in the diagnosis of UAB, and a paucity of viable treatment options, this review scopes the current literature over the last five years to identify any recent research developments that may be of interest to patients and healthcare professionals. This article is guided by the research question: Does recent research in the literature identify any potential tissue targets, or pharmaceutical medications, for the future treatments of underactive bladder?

METHODS

Protocol and registration

This scoping review is reported in compliance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR).¹² An *a priori* protocol was developed prior to the commencement of any searching or database assessment and published online through Open Science Framework (<https://osf.io/z2hg4>). It was hypothesised that underactive bladder remains an under-researched area, however, there will be suggestions in the literature for future alternative pharmaceutical therapies that may be effective. A preliminary search of MEDLINE, the Cochrane Database of Systematic Reviews and JBI Evidence Synthesis was conducted and no current or underway systematic reviews or scoping reviews on the topic were identified.

Eligibility criteria

This scoping review included all English language full-text articles published on PubMed (MEDLINE database). The PubMed database was searched for articles published over a five-year period from the

dates 1 April 2018 to 1 April 2023. The search was undertaken to identify original research papers on pharmaceuticals for the treatment of any contractile disorders associated with UAB. Studies on humans and animals (both in vivo and in vitro) were included from any age, gender, or weight. Patients presenting with UAB as a consequence of surgery or injury were excluded. The review excluded reviews, abstracts, and clinical trials.

Search strategy

The following search string was employed (formatted for the PubMed search):

```
("underactive bladder"[Title/Abstract]
OR UAB[Title/Abstract]
OR "detrusor underactivity"[Title/Abstract]\
OR "bladder underactivity"[Title/Abstract]
OR "Urinary Bladder, Underactive"[Mesh])
AND (Drug[Title/Abstract]
OR medication[Title/Abstract]
OR pharmaceutical*[Title/Abstract]
OR pharmacotherapy[Title/Abstract]
OR alpha-blocker[Title/Abstract]
OR "adrenergic antagonists"[Title/Abstract]
OR "cholinesterase inhibitors"[Title/Abstract]
OR "muscarinic agonists"[Title/Abstract])
AND 2018/04/01:2023/04/01[dp]
NOT (Review[Publication Type]).
```

To identify the grey literature, a forward-backwards scan was undertaken by two independent authors (CP and ST) by searching the reference lists of the identified studies in the initial search to identify any additional studies not captured from the database search.

Types of Sources

This scoping review considered both experimental and quasi-experimental study designs, including: randomised controlled trials; non-randomised controlled trials; before and after studies; and interrupted time-series studies. In addition, analytical observational studies, including: prospective and retrospective cohort studies; case-control studies; and analytical cross-sectional studies were considered for inclusion. This review also considered descriptive observational study designs, including: case series; individual case reports; and descriptive cross-sectional studies for inclusion.

Study of evidence selection

Two independent authors (CP and ST) conducted the screening of the literature by an initial title and abstract scan followed by a full-text review. This was conducted using Covidence, an online screening and data extraction tool (covidence.org, Melbourne, VIC,

Australia). Data extraction was conducted manually using Microsoft Excel independently by the two authors (CP and ST). Discrepancies in screening and extractions were referred to a third independent author (CM) for resolution.

Data extraction

The primary outcome of studies included in this scoping review was the effectiveness of pharmaceuticals for underactive bladder treatment and management. This included parameters such as benefits observed, alleviation of any symptoms associated with UAB (infection, retention, stones etc.), follow-up periods, and adverse side effects experienced.

RESULTS

Search results

The electronic search on the PubMed database from 1 April 2018 to 1 April 2023 returned 28 articles, which were title and abstract screened, along with an additional two articles from forward-backwards searching. The outcomes of this screen resulted in eight articles that underwent full-text review. Of the

10 reviewed in full-text, eight met the inclusion criteria and were included in the final analysis of this scoping review (Figure 1).

Included studies

Eight studies were included in this scoping review, comprising a range of study designs and varied study populations (Table 1). Six studies were undertaken in Japan, one study in the United States and one study in Taiwan, in either research laboratories or medical institutions. Five studies included patient participants, and three studies included animals (such as monkeys and rats). Four studies included only female participants and three studies included both males (range 57–63.3%) and females (range 36.7–43%). One study did not have a formal control group. There was also variation in the age of participants, ranging from 24 weeks old to 82 years old.

DISCUSSION

Evaluation of the literature

The literature does provide insights into potential new treatments for underactive bladder. Although

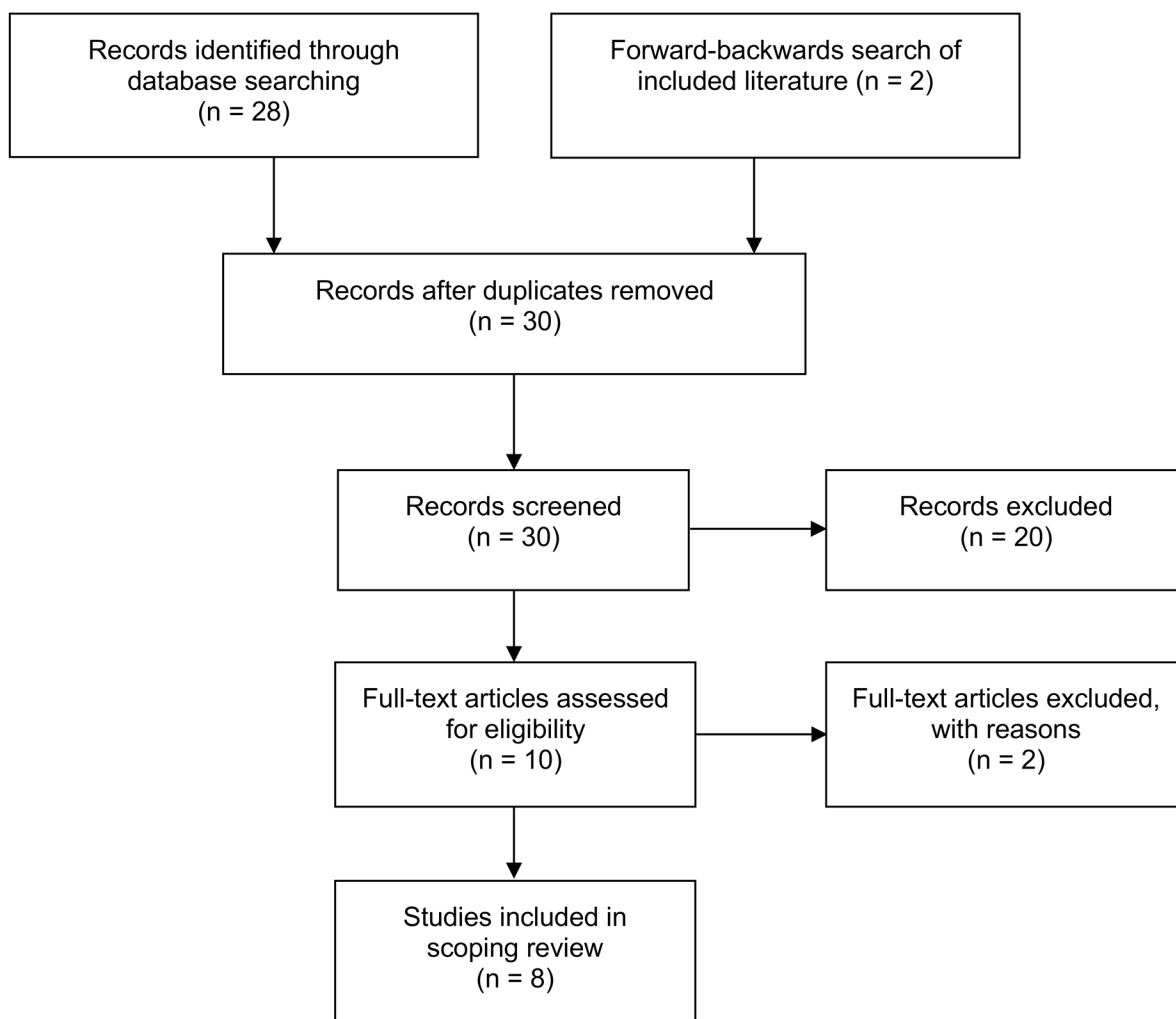


Figure 1. PRISMA flow chart for identification and inclusion of studies.

Table 1. General characteristics of included studies: participant information and study design.

Author, year location	Study design, follow-up	Participants	Number of participants (n in each arm)	Gender	Age	Intervention: Dose, frequency, duration	Comparator/s: Dose, frequency, duration
Chen et al ¹³ 2022 Taiwan	Retrospective. Video urodynamic study	Female patients unable to spontaneously void or with increased PVR (detrusor underactivity). All patients had contractility index scores (Pdet+5 x Qmax) of <100	409 (67 conservative CiC indwell catheter, 206 medical treatment, 87 transurethral incision of the bladder neck, 35 urethral sphincter botulinum, toxin A injection, 14 pelvic organ prolapse surgery)	0% male, 100% female	18 years (mean)	Either alpha blockers with or without cholinergic agent initially, if conservative treatment failed other treatment were suggested (dosage not stated).	Urethral sphincter BoNTA-A injection
Matsukawa et al ¹⁴ 2021 Japan	Comparative study using data from a prospective, open-label and non-randomised controlled trial	Patients experiencing LUTS and diagnosed via a DU pressure-flow study	126 (59 tadalafil, 67 silodosin)	100% male, 0% female	50-84 years	Tadalafil (5mg/day), 12 months	Silodosin (8mg/day), 12 months
Matsuya et al ¹⁵ 2018 Japan	<i>In vitro</i> isolated tissue and voiding characteristics	Cynomolgus monkeys (Macaca fascicularis)	46 (4 controls for radical hysterectomy, 42 experimental)	0% male, 100% female	3-8 years old	A1: EP2 and EP3 receptor dual agonist (ONO-8055)	A2: Distigmine
Sekido et al ¹⁶ 2020 Japan	Cystometry	STZ-induced diabetic Sprague-Dawley rats	23 (6 alpha-blocker, 8 cholinesterase inhibitor, 9 EP2/3 dual agonist)	100% male, 0% female	24 weeks old	A1: EP2/3 dual agonist (ONO-8055, 0.01 and 0.03 mg/kg, 1x oral dose)	A2: α -blocker (tamsulosin, 0.1 and 0.3 mg/kg, 1x oral dose) A3: cholinesterase inhibitor (distigmine 0.3 and 1.0 mg/kg, 1x oral dose)
Sugimoto et al ¹⁷ 2019 Japan	Non-randomised single arm study	Patients 20 years old or younger with an IPSS of ≥ 8 points and a PVR of ≥ 50 ml despite the use of an alpha-blocker plus a cholinergic drug.	7	57% male, 43% female	72-82 years	Acotiamide hydrochloride hydrate (100mg 3x/day, for 2 weeks)	NA

Author, year location	Study design, follow-up	Participants	Number of participants (n in each arm)	Gender	Age	Intervention: Dose, frequency, duration	Comparator/s: Dose, frequency, duration
van Till et al ¹⁸ 2022 Europe and Japan	Randomised, double-blind, placebo-controlled multicentre study	Patients experiencing symptoms of UAB (PVR > 100ml) without bladder outlet obstruction or observable overactive bladder	135 patients (65 ASP8302, 70 placebo)	Placebo: 57% male, 43% female ASP8302: 60.8% male, 39.2% female	Placebo: 61.1 years (mean) ASP8302: 62.8 years (mean)	ASP8302 (100mg/day), 4 weeks	Placebo (100mg/day), 4 weeks
Yonekubo-Awaka et al ¹⁹ 2022 Japan	Urodynamics	Sprague-Dawley rats	4-13	0% male, 100% female	9 weeks old	Sildenafil (0.3 or 1mg/kg, for 4 weeks)	Urapidil (30 or 100mg/kg x1/day, for 4 weeks)
Yoshida et al ²⁰ 2022 Japan	Multicenter, randomised, double-blind, placebo-controlled phase 2 trial, 13 weeks	Participants >20 years of age with both voiding symptoms and OAB, PVR ≤ 300 mL, and a diagnosis of DU	60 (42 intervention; 18 control)	63.3% male, 36.7% female	70.8 years (mean)	A1: oral TAC-302 200mg, 2x daily, 12 weeks A2: Placebo 2x daily, 12 weeks	

Abbreviations:
 PVR = post-void residual volume
 DU = detrusor underactivity
 IPSS = International Prostate Symptom score

activation of prostaglandin EP2 and EP3 did not cause major improvements in the rat bladder contractions,¹⁶ there were some benefits, such as decreased postvoid residual volume. In addition, in some cases, voiding function was improved to the same degree as with parasympathomimetics¹⁵ by using an EP2/EP3 dual agonist. As such, although consistent benefits have not been clearly identified, these suggestions promote prostaglandins as a receptor system that certainly warrants further investigation and potentially important in bladder contractions.²¹⁻²⁵

Although recent literature has suggested that parasympathomimetics are unlikely to be helpful in alleviating underactive bladder,⁴ Sugimoto et al¹⁷ identified promising results for acotiamide (a non-selective muscarinic antagonist) towards increasing bladder pressure during voiding. This means that although only seven patients were included in this single-arm study, the potential for parasympathomimetics may not be entirely unevicenced by the research just yet.

Within the bladder tissue itself, there are a number of systems that could be impacted in underactive bladder. The most assessed is the muscarinic receptors, responding to acetylcholine.²⁶ This has also generated some interest in the M3 allosteric modulator ASP8302, which appears well tolerated, and may present some benefits to males with underactive bladder.¹⁸ The urothelium also has systems that induce contraction in response to agonists, such as the alpha-adrenoceptor,²⁷ 5-HT,²⁸ and prostanoid²⁹ receptors. It is unclear how these systems are involved in overall bladder contractions, but any inhibition of the receptors or second messenger mechanisms may, in some way, inhibit bladder function and present as underactive bladder. Alternatively, mechanisms such as activation of the nitric oxide pathway³⁰ or beta-adrenoceptor³¹ system may directly induce relaxation of the tissue itself. The nitric oxide system has been of partial recent interest, with both tadalafil and sildenafil demonstrating some benefits towards the reduction of lower urinary tract symptoms in men with non-neurogenic detrusor underactivity.¹⁴ As more research is conducted into the mechanisms underlying bladder physiology, and the receptors involved, systems such as these may present opportunistic areas for future research.

Of particular concern is the potential for high risk of bias within the literature. Six of the eight studies received funding from pharmaceutical companies with an interest in the treatment regimens. Although for each case the connection was clearly disclosed, this raises the prospect that independent, conflict-free research might be of interest to even the balance and reduce bias across the samples. This introduction of pharmaceutical findings would also make meta-analyses difficult, as the high risk of bias would limit the usefulness of the results presented in a broader context.

CONCLUSION

In conclusion, there remains limited recently published research into treatments for underactive bladder, and there is great variety in the methods used for their assessment, making summated and general conclusions challenging. Study findings are confounded by a potentially high risk of bias, due to a predominance of industry-funded studies. Nonetheless, pre-clinical research is ongoing and uncovering potential receptor systems that could be dysfunctional in the urinary bladder, presenting these as novel targets for future treatment development.

CONFLICT OF INTEREST

The authors declare no conflicts of interest.

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Did you know... occupational therapists assist in assessment and management of continence across the lifespan?

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ABSTRACT

Managing a complex issue like incontinence requires a multidisciplinary approach. While the traditional roles of doctors, nurses, dieticians, and physiotherapists are generally well understood, the role of occupational therapy is often unclear. This paper aims to explain how occupational therapists can contribute to the team management of continence by addressing this across the life span. With a focus on independence and functional outcomes, occupational therapists are well positioned to enhance client outcomes, from birth to death, from assessment to longer term management.

Keywords occupational therapy, encopresis, enuresis, activities of daily living, incontinence

INTRODUCTION

The management of incontinence requires a multiprofessional approach that includes doctors, physiotherapists, nurses and other health professionals.¹ Occupational therapy is one of the 'others' and has a valuable role, frequently misunderstood, underutilised or 'hidden'.²

Occupational therapists use person-centred and holistic approaches, based on a bio-psycho-social model of health with a goal to maximise independence and quality of life across the lifespan. The term 'occupation' refers to the things that people have to do, need to do and want to do to make life meaningful.³ Occupations can be categorised as work or productivity, leisure or play, and activities of daily living, including self-care. Toileting is an activity of daily living task, which is core to occupational therapy practice. The occupational therapy practice framework³ expands on this and describes the activity of toileting to include the following: "obtaining and using toileting supplies, managing clothing, maintaining toileting position, transferring to and from toileting position, cleaning body, caring for menstrual and continence needs (including catheter, colostomy, and suppository

management), maintaining intentional control of bowel movements and urination and, if necessary, using equipment or agents for bladder control".³

Occupational therapists assist people when their 'occupation' is impacted by disability, developmental delay, illness, accidental injury, ageing, or end of life. Not only is continence inextricably linked to independence in activities of daily living, continence and good bowel and bladder health impact all elements of occupation and independent functioning. Using the model of human occupation, the focus is not on the disease or diagnosis, but rather on the interaction of the individual with the environment, volition and self-efficacy.⁴

As with other health professions, bowel and bladder health is an area of special interest and high specialisation, so not all occupational therapists will have developed skills in this area. Occupational therapists tend not to provide services based on a bio-medical category, but rather consider how continence contributes to overall function and independence. Because of this, occupational therapy is frequently provided as a component of the multidisciplinary team, and their role in incontinence is often inconspicuous. The goal of this paper is to provide an overview, with some examples, of how occupational therapists can assist in the assessment and management of continence across the lifespan, from birth to death.

KEY AREAS ACROSS THE LIFESPAN WHERE AN OT CAN ASSIST IN CONTINENCE MANAGEMENT

Children

There is a myriad of reasons why children present with incontinence, hence the team approach can be broad, including medical specialists, continence nurses, dieticians, psychologists, and physiotherapists. The strength of the approach is that the occupational

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therapist rarely works in isolation. Some areas where an occupational therapist can assist in children are encopresis or retentive fecal incontinence and enuresis, including bed wetting. It is estimated that as many as 32% of children may have gastrointestinal disorders which can have a negative impact on the social, emotional and educational function of the child.⁵ By school age about 10% of children experience urinary and fecal incontinence.⁶ Children with attention deficit disorder and autism may have sensory processing issues which can lead to a fear of toileting, constipation, and retentive fecal incontinence.^{5,7} Enuresis may present in children as bed wetting, associated with developmental delay and hyperactivity disorders.⁸ Incontinence is also present in some children with congenital conditions, such as cerebral palsy and spina bifida.^{6,9} These are just some examples of where a child experiencing continence issues may be referred to occupational therapy for assessment and intervention as a part of a care package.

Occupational therapists are skilled in the assessment and management of childhood development and use play as a treatment modality. A comprehensive assessment of a child by a paediatric occupational therapist can assist in the development of behaviour management programs that may improve toileting problems.⁷ Breaking down the task of toileting is also useful in developing targeted strategies to improve independence. For example an occupational analysis of toileting identifies numerous sequential steps including mobilising to the toilet, transferring onto the toilet, managing clothing, manipulating pads, paper etc, flushing and washing hands.⁹ Difficulties in any of these steps can compromise continence. As a part of a co-ordinated team approach, the occupational therapist may work with physiotherapists to develop programs that improve pelvic floor muscle coordination and activation, provide education to parents and children on the anatomy and physiology of the digestive system, teach strategies for emotional regulation, and develop functional training plans for the bathroom, including hygiene. A combined physiotherapy and occupational therapy approach has been successful in assisting children to achieve full continence.⁵ Occupational therapists are practical problem solvers and functional training breaks down the tasks into sequential steps to enable a child to understand a complex task that can overwhelm.⁹ Children with sensory processing difficulties have a range of behavioural manifestations and managing toileting enables integration into schools and reduces parental stress. Occupational therapists have a large presence in childhood settings and may address continence issues identified in schools when other developmental or behavioural issues may also be identified.

Adults

Incontinence presents along with neurological conditions, such as spinal cord injuries, multiple sclerosis, Parkinson's disease and stroke.¹⁰⁻¹² Occupational therapists and physiotherapists work in unity to ensure that gains in musculoskeletal and mobility are reinforced through meaningful activity.

A spinal cord injury may impact on bowel and bladder function, with 32% of spinal cord patients experiencing an impact on bowels and 44% experiencing bladder dysfunction attributable to a spinal cord lesion.¹¹ An integral part of the rehabilitation program for patients is mastering the tasks that support bowel and bladder management. This includes transfer ability, mobility, balance, arm strength, manual dexterity and mental health factors, such as motivation and depression.¹³ Occupational therapists have studies in the behavioural sciences and are trained in motivational counselling, cognitive behaviour therapy and use occupation to support good mental health and recovery.¹⁴ Other areas where occupational therapists can assist is in recommending adaptive equipment and home modifications.¹³ For example, the height, location and design of the toilet may require modification. Urinals and bed aids may be prescribed by an occupational therapist. Being able to clean and wipe properly is an important part of an occupational therapy assessment of bowel and bladder management and a variety of assistive devices are available. Assessment of function and knowledge of aids for independent living are core to occupational therapy practice.³

Support for managing continence may be available under the Australian National Insurance Disability Scheme (NDIS). Health supports such as pads, bed protectors, bottles, and collection bags (for example) can be funded if required in an eligible applicant's NDIS personal plan.¹⁵ Did you know that occupational therapists are approved prescribers for a variety of medical aids and equipment, including continence aids in Australia under the NDIS, Department of Veterans Affairs, health insurance schemes and jurisdictional medical aids schemes? This is particularly useful in rural and remote areas where the presence of health professionals may be scarce.

Older people

Incontinence is a risk factor for falls¹⁶ and pressure injuries¹⁷ and it is associated with cognitive decline.¹⁶ Along with falls and dementia, incontinence is a major contributor to carer burden and a precursor to nursing home placement. Aged care assessment teams include occupational therapists who are approved prescribers of activities of daily living and continence aids under My Aged Care in Australia.¹⁸

Prescription of aids, such as a bedside commode or night lights, may assist in restorative and rehabilitation goals. Simple home modifications such as grab rails may reduce risk of falls in situations of urinary urgency. Bidets have been shown to reduce the caregiver burden with older people.¹⁹ While not treating incontinence, the goal is to manage it, reduce the burden of care, and support people to live independently and safely in the community for as long as is practical.

As continence is viewed as intimate and personal, an assessment of daily living by an occupational therapist may identify the presence of incontinence as a part of the occupational assessment.²⁰ An important component of occupational therapy practice is client

and carer education. As a primary health contact, the occupational therapist is in a unique situation to refer to other services once a continence issue has been disclosed.

End of life

Toileting is a primal self-care activity and linked to personal dignity and self-efficacy.²¹ Urinary incontinence is also a predictor of decline in activities of daily living.²² Assisting individuals to participate in self-care activities in the dying phase leads to quality of life at the end of life.^{23,24} Managing continence, including aids is one way the dying patient can exercise some control or volition from an occupational perspective.^{4,23} Many of the strategies listed across the lifespan can be employed in the palliative phase to support the client to maintain personal dignity.

HOW AN OCCUPATIONAL THERAPIST CAN HELP

In summary, an occupational therapist can assist in the management of incontinence in the following key areas:

1. Assessment and planning
2. Equipment and medical aids
3. Home modifications
4. Client and carer education and training
5. Community independence

All the above have a focus on managing incontinence and improving quality of life by using practical, client centred approaches. Occupational therapists have a holistic perspective and consider toileting, including continence management as a fundamental human occupation. While the above discussion is not extensive, it provides some examples of how occupational therapists can contribute to the health care team.

CONFLICT OF INTEREST

The author declares no conflicts of interest.

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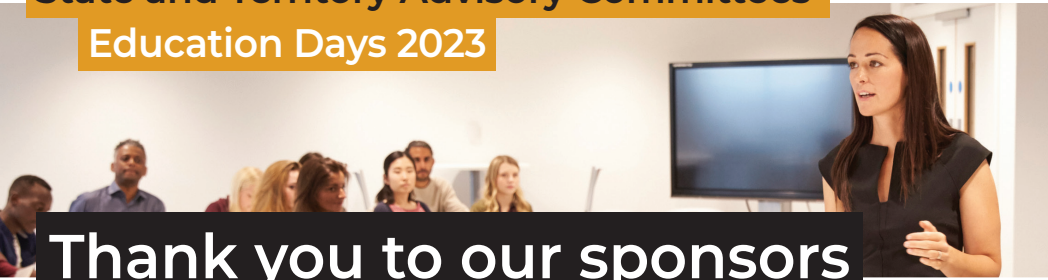
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NEWS

AUSTRALIAN NEWS

The new year has started with several significant projects and some changes at the Continence Foundation of Australia. Earlier this month we said goodbye to Rowan Cockerell, CEO of the Foundation. Rowan joined the Foundation in August 2011 as Deputy Chief Executive Officer and was promoted to Chief Executive Officer in November 2015. We would like to express our deepest gratitude to Rowan for her exceptional leadership during her tenure. Rowan's vision, guidance, and unwavering dedication have left an indelible mark on our organisation and the continence community.

This is an important year for the Foundation, as we move into the design phase of our rebranding project and solidify our new visual identity. The 32nd National Conference on Incontinence will be held in Brisbane in May 2024, attracting delegates from across the globe to discuss the latest innovations in continence health. Lastly, our continence resources are currently being updated, including a review of the Pelvic Floor First website.

Rebrand of the Continence Foundation of Australia

The Foundation commenced a rebrand project in mid-2023. The current brand has supported the Foundation since the establishment of the organisation over thirty years ago. Since then, the continence health sector in Australia has changed and we are changing with it. The intention of the project is to develop a new organisational identity and consolidate the Foundation's market position. The project has now reached the design phase, which includes a review of the name of the Foundation and the development of a new visual identity. The rebrand project is expected to be completed and the new brand launched in the first half of this year.

The 32nd National Conference on Incontinence

The 32nd National Conference on Incontinence will be held in Brisbane on the 22-25 May 2024. Registrations are now open for this year's conference and the program was launched early February. The conference's theme is Engage Innovate Lead, and the event will bring together over 500 delegates from Australia and overseas to discuss the latest developments in continence health. This year's international guests include nurses, physiotherapists and researchers with expertise in bladder, bowel, and pelvic floor health.

Health Promotion

Two key health promotion projects are underway after an extensive period of research and investigation. The Pelvic Floor First review project involves reviewing and updating the Continence Foundation of Australia's Pelvic Floor First website. This website contains a suite of resources, with information and advice about

pelvic floor health and strengthening the pelvic floor. Maintaining pelvic floor health is critical to both preventing incontinence and reducing the impacts of incontinence. The project has now passed the research phase. An updated literature review on pelvic floor health has been completed, as well as consultation with health professionals, the fitness industry and community members.

We are also undertaking a review and update of our toilet training resources, to ensure all children have the best start to independent toileting. Our research has included an evidence review and survey of parents and carers about what information and resources they need to toilet train their children.

The Great Dunny Hunt

The Great Dunny Hunt is an annual campaign that aims to raise awareness of the National Public Toilet Map, an interactive resource that shows the location of more than 22,000 toilet facilities across Australia. Ideal for those experiencing incontinence, travelling and young families, the map allows people to search for public toilets based on location and facility needs.

The Great Dunny Hunt competition will launch in March 2024 and run until World Continence Week in June 2024. Competition entrants will have the opportunity to win a cash prize as incentive for contributing to the map. Further information will be made available on our website in the coming month.

Paula Hay

Acting CEO, Continence Foundation of Australia

NEW ZEALAND NEWS

CEO Update

We started 2024 with a change to our team as our CEO Laura Fear resigned from her role to start an exciting new position in January.

Laura joined the organisation in September 2022, and played a significant role in the successful delivery of our research project funded by the Lottery Grants Board. She also worked closely with our team to ensure the success of our conference last year. We would like to acknowledge Laura's contribution to the organisation and wish her all the very best for the future.

As our small team is working on delivering several projects, we have made the decision to commence recruitment for a new CEO in the second quarter of 2024. We are fortunate to have a passionate, experienced, and dedicated team, and it will be business as usual until a new CEO is appointed. As a former CEO (and current funding and planning manager), I will continue in my role and provide support as acting CEO until we have completed the recruitment process. Our programme manager Zoe Gillett will also assist with providing support to the team, and we are confident that we will continue to deliver during this interim period.

Executive Committee

At our Annual General Meeting (AGM) in November 2023 our members elected Auckland-based pelvic health physiotherapist Hannah Orr to our Executive Committee, and reappointed Dr Anna Lawrence and Dr John Short for a further two years. Thank you to everyone who participated in the AGM and voting process.

Over her career, Hannah has predominantly worked in the public health system and now works privately, treating adults with pelvic health conditions ranging from difficulty holding on, to difficulty emptying and pelvic pain. Alongside her clinical work, Hannah has also participated in pelvic floor research at the Auckland Bioengineering Institute where she recently completed a Master's project looking at the relationship between exercise and vaginal pressures. She is a keen participant and contributor to further education and finds great enjoyment in immersing herself in new research that is meaningful to the experience of the people she works with. Hannah is also a mum to two kids, a dog, a cat and five fish and whenever possible loves to be out running.

The Executive Committee has also recently appointed Alex Shahryar-Davies to the committee. Alex is a public servant, ordinarily based in Wellington but currently on a diplomatic posting in Suva, Fiji. Over his career, Alex has worked in a variety of public sector roles in Aotearoa New Zealand, the United Kingdom, Vanuatu, and Sierra Leone. In addition to his governance role with Continence NZ, he has held previous governance roles with non-profit organisations. Alex is a proud New Zealander of Bangladeshi and Scottish ethnic heritage and has two young children.

Education

Our popular Toilet Tactics webinar series, which ran from August to November 2023 with children's continence nurse Lisa Smith is now available on demand. The series covered topics such as bowel and bladder health, toilet training, constipation, bedwetting, daytime wetting, stool withholding, and toilet training for children with additional needs. It is free to register for one or all the webinars. We will have further webinars for both adults and children running throughout the year, including a series to support students with intellectual disabilities, which has kindly been funded by the IHC Foundation.

Visit continence.org.nz/ for details of our webinars.

Louise Judd

Acting CEO, Continence NZ