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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.

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Guest editorial

Incontinence: A local issue with global implications for nurses

When we started our nursing practice, incontinence was a given. It just happened to some people, mostly the elderly and especially those who had dementia. Our role was to keep our patients ‘clean and dry’; so we contained it in pads or mopped it up. Being incontinent embarrassed some of our patients, but many of them accepted it as a burden to be borne, just as we did.

But then we began to ask the questions: Why should it just be borne? What can be done to improve the situation? We embraced these questions over the course of our nursing careers and are gratified that great advances in understanding the causes of and risk factors for urinary incontinence have been made.

Evidence for many of our nursing practices has emerged. Continence nurses across the world use strategies on a daily basis to proactively prevent incontinence; to improve incontinence and lessen its burden on affected adults and their carers; and to alleviate suffering in those whose incontinence cannot be improved. At the same time, nurses are actively engaging in research to better understand efficacious and effective nursing practices for incontinent people. Nurses interested in issues of incontinence are joining local, state, national and international multidisciplinary groups and consumer-led organisations to continue the efforts to: reduce the public health impact of urinary incontinence; remove the stigma of being incontinent and encourage help-seeking behaviour; and to develop, test and refine nursing interventions to prevent, improve or cure incontinence.

The International Continence Society (ICS) was formed in 1971 by a group of researchers interested in developing global collaborations to investigate both bladder and anorectal function and dysfunction. The development of standardised terms and definitions was a priority to ensure comparisons across researchers and studies and to improve communication about continence. While nurses have been active in the ICS, it was not until 2007 that the ICS Nursing Committee was established with the aim:

... to develop and refine evidence-based global bladder and bowel care nursing to prevent, treat, and manage bladder and bowel conditions, promote the quality of care and quality of life of affected individuals, and support caregivers.

Information is available on the website: www.icsoffice.org/ViewCommittee.aspx?ViewCommitteeID=30

Committee membership is not limited to nurses alone. Members include clinicians with an interest in the nursing care of patients with bladder and bowel conditions. To further the broad purpose of the work of the committee, in 2009 four subcommittees were formed in the areas of practice, research, education and communications. The Nursing Committee holds a Nurses Forum prior to each meeting of the ICS. This year our meeting will take place on Sunday 28 August 2011 in Glasgow, Scotland. The ICS website has more information about the conference: www.icsoffice.org/

At the Nurses Forum the practice subcommittee will report on the conclusion of work that it commenced in 2009 when it identified – through a Delphi survey technique of the ICS nursing membership and members from several nationally based continence nursing organisations – three practice issues that were of concern across the world. These were the:

• need to articulate the role of the continence nurse advisor and continence nursing
• almost total lack of guidance on postnatal bladder care
• reuse of catheters for long-term intermittent self-catherisation and reuse of urinary drainage bags.

Subsequent to the identification of these issues, the members of the practice subcommittee surveyed the ICS nursing membership to determine their practices related to sterile or clean catheters and urinary drainage bags. This group also prepared an evidence-based paper addressing aspects of postnatal bladder care and undertook a literature search and consultative process to begin the identification of the scope of practice of continence nurse specialisation. Opinion papers – building on the work undertaken in 2009 and the current literature being developed in relation to postnatal bladder care, urinary catheter and leg bag reuse, and the identification of the scope of practice of the continence nurse specialist – will be complete in July 2010. Another Delphi survey is planned in 2011 to identify new practice issues and these will also be presented at the forum in Glasgow.

Historically, few nurses present their research during the ICS scientific meeting. In 2009, 883 abstracts were submitted and, of those, 372 abstracts (42%) were submitted by individuals who did not identify their profession. Of the remainder, nurses submitted 21 abstracts and, of those, five were accepted for presentation. Nurses have been and continue to be leaders in promoting best practices. Our science provides a solid basis for those practices. Thus, to encourage and to promote nursing research related to continence, the research subcommittee recently issued a call for abstracts for paper presentations during the Nurses Forum. Topics for completed or ongoing research include: urinary incontinence in different health care delivery settings such as long-term, acute and community care; different populations such as paediatric, adult and geriatric; ante and postnatal incontinence; urinary catheter care, and the scope of nursing practice relation to incontinence. For further information, see the website: www.icsoffice.org/Documents/Documents.aspx?DocumentId=864

As opportunities arise we urge you to consider taking part in the efforts of these two subcommittees of the ICS Nursing Committee. Our practice and research efforts must be shaped by and disseminated to local and global audiences in order for it to reach those who need our services.

As we look back over the years, we are pleased with the progress within the nursing profession, but as we look forward we see much more work remains to be done. As the population ages and as technological advances make the world a smaller place, we are offered both challenges and opportunities to work together to question the status quo and seek out better solutions to practices that are evidence-based, culturally sensitive, and able to meet the continence needs of the dramatically increasing number of people over the age of 65 years.

According to the World Health Organization, it is highly likely that there will not be an adequate number of specialist, trained health professionals to meet the health demands of this increasingly older population. It is well established that the prevalence of incontinence increases with age and in the presence of chronic diseases like diabetes mellitus and dementia. Clearly, if there is a corresponding increase in requirements for continence services with no increase in workforce, then continence-specific services will only be able to deal with a limited number of people. To ensure that all people have the right to continence promotion and care, an ongoing commitment by nurses in the coming decades to a policy driven, systematic, population health-based approach to continence care will be required.

This approach focuses on prevention, community ownership, primary care and integration with tertiary services. However, research into the prevention of incontinence, especially in adults, is scarce and there is some evidence that indicates some generalist health professionals do not readily provide continence care and advice because of the difficulty in implementing their clinical knowledge or failure to ask the patient about the problem. Thus our work is not finished. We must garner our resources to work together, near and far, to achieve another common goal: preventing incontinence from occurring and when that is not practicable, improving the lives and care of our current and future incontinent patients through state-of-the-science nursing practice and research that readily challenges the current status quo.

References
Peer review

Dietary supplement usage by Japanese adults with urinary incontinence

Abstract

Urinary incontinence (UI) is a distressing condition that affects the lifestyle of older people. This study documented the prevalence and type of dietary supplements usage among incontinent adults in Japan. A total of 683 men and 298 women (mean age 63.6, SD 7.6 years) were recruited from the community in central Japan. The International Consultation on Incontinence Questionnaire – Short Form (ICIQ-SF) was administered by face-to-face interview to ascertain UI status. Detailed information on dietary supplementation, including frequency and duration of usage, was obtained from the participants. The prevalence of UI was 8% (n=54) among the male participants and 28% (n=83) among the female participants, who had experienced urine leakage for 2.6 (SD 1.8) years and 4.2 (SD 5.1) years, respectively. Of these 137 incontinent adults, 49.6% took supplements on a weekly or daily basis, the prevalence being higher for women (n=45, 54.2%) than men (n=23, 42.6%). The most popular dietary supplements were vinegar, vitamin C and tree kale juice. The prevalence of dietary supplementation among incontinent adults was higher than that reported for the Japanese general population. Further research to determine the factors affecting their usage is recommended.

Keywords: Incontinence, dietary supplements, prevalence, urine leakage.

Introduction

Urinary incontinence (UI) is a distressing condition and costly problem in middle-aged and older people. The International Continence Society in 2002 defined UI as “a condition where involuntary loss of urine is a social or hygienic problem and is objectively demonstrable”¹. The prevalence of UI is known to be higher for women and increases with age, obesity and smoking²⁻⁴.

Dietary supplements, especially multivitamins and mineral supplements, have been widely consumed, even though their effectiveness is unclear¹. In recent years, the market for dietary supplements has been increasing worldwide. Many people consume multiple supplements in the hope of gaining additional benefit. According to a recent study, the overall prevalence of dietary supplementation was estimated to be 45.8% among Japanese adults aged over 55 years. Within the five categories of supplements, the most popular reported were multivitamins for men and vitamin C for women⁶. Various types of dietary supplements are now available on the market, but, despite the immense community interest, there has been no published report in the literature documenting their usage in the daily life of incontinent adults.

Nutritional therapy for UI has gained some credibility since the recognition of complementary and alternative medicine by government as part of integrated health care⁷. Anecdotal evidence has suggested that certain vitamin and mineral
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supplements, plant extracts and herbs, taken as an adjunct to standard treatment, may produce an enhanced, synergistic activity similar to the drugs used to treat UI. However, scientific evidence is still lacking and claims concerning their effectiveness have not been substantiated, unlike pelvic floor muscle exercise and bladder training. There is clearly a paucity of research concerning UI and usage of dietary supplements. The present study aimed to ascertain the prevalence and type of dietary supplements taken by adults with UI in Japan.

**Methods**

**Subjects**

Seven hundred men and 300 women aged 40 to 75 years living in central Japan were recruited from the community. This convenience sample of subjects was interviewed by the second author at shopping malls or when they attended community centres or undertook health checks at hospital clinics. Subjects were excluded if they were non-residents or outside the desired age range. A quota sampling scheme was adopted and data collection was conducted over 18 months.

A total of 683 eligible men and 298 women were available for analysis after excluding participants with missing personal details or those who subsequently withdrew from the study. The purpose and procedure were explained to the participants before obtaining their written consent. Confidentiality and the right to withdraw without prejudice were ensured and maintained throughout the study. The project protocol was approved by the Human Research Ethics Committee of Curtin University of Technology.

**Instruments**

A structured questionnaire incorporating the International Consultation on Incontinence Questionnaire – Short Form (ICIQ-SF) was administered face to face to assess UI status. The ICIQ-SF is a measure for evaluating the severity of urinary loss and condition-specific quality of life. The reliability, validity, and sensitivity of the instrument have been established, while linguistic validation of its Japanese version was completed. It consists of three components to determine frequency, quantity, and impact of urine leakage. Frequency was categorised into 0 (never), 1 (about once a week or less often), 2 (two or three times a week), 3 (about once a day), 4 (several times a day), and 5 (all the time). UI was considered present for those subjects within categories 1 to 5. Quantity was measured from 0 (none), 2 (a small amount), 4 (a moderate amount) to 6 (a large amount). The impact of leakage on daily life was scored on an incremental scale from 0 (not at all) to 10 (a great deal).

The circumstances of incontinence were recorded via a separate self-diagnostic item, with urge incontinence defined as “leaks before you can get to the toilet”, stress incontinence defined as either “leaks when you cough or sneeze” or “leaks when you are physically active or exercising”, while the combinations of these symptoms were regarded as mixed incontinence. Other incontinence referred to “leaks when you are asleep”, “when you have finished urinating and are dressed”, “for no obvious reason”, and “all the time”. Two questions were appended to the ICIQ-SF to find out how long the subject had had the condition and whether treatment was sought.

Information on dietary supplement usage was next solicited from the participants. Specific dietary supplements were classified into five categories, namely, multivitamin, beta-carotene, vitamin C, vitamin E, and miscellaneous, following the convention adopted by the Japan Public Health Centre-based prospective study on cancer and cardiovascular disease. The brand name, frequency, duration and dosage of all supplements consumed by each participant were recorded. Users of dietary supplements were defined as subjects who used at least one category of dietary supplement on a weekly basis for one year or longer.

The third part of the structured questionnaire collected demographic information (including age, height, weight, marital status, education level, retirement status and location of residence) and lifestyle characteristics such as smoking habit and alcohol consumption, as well as health conditions (hypertension, ischaemic stroke, diabetes mellitus, depression and cancer). On average, each interview took about 30 minutes to complete.

**Statistical analysis**

Participants with UI were first identified on the basis of positive outcomes to the ICIQ-SF questions. Descriptive statistics were applied to summarise this subgroup of incontinent individuals, and their characteristics were compared between genders using chi-square and t-tests. Statistical significance was assessed at the 5% level. The prevalence of dietary supplementation by category was tabulated. Frequency and duration of usage was also examined among users. All statistical analyses were performed using the SPSS package version 17.

**Results**

Among the 981 participants, 137 (14%) had self-reported UI, including 54 men (8%, mean age 65.4 years) and 83 women (28%, mean age 62.6 years). Table 1 presents the demographic and lifestyle characteristics of this subgroup by gender and shows that most respondents in this group were married, had high school or below education and were still employed. About half of...
them had another health condition in addition to UI. Compared with the women who reported symptoms of incontinence, the men who reported incontinence were three years older on average (p=0.036) and more likely to smoke (p=0.026) and consume alcohol on at least a monthly basis (p=0.003).

Table 2 summarises the ICIQ-SF outcomes. Urine leakage among the 137 incontinent subjects was typically “a small amount” and occurred once a week or less often. Only a few considered the condition to have interfered with their daily life to a great extent. The distribution of incontinence type was different (p<0.001) between men and women, with urge incontinence being the most common type for men (n=31, 57.4%), whereas the majority of incontinent women reported stress type leakage (n=56, 67.5%). The duration of the condition was also significantly longer (p=0.011) for women (mean 4.2, SD 5.1 years) than men (mean 2.6, SD 1.8 years). However, only two men and one woman consulted their physician to discuss their incontinence.

Table 1. Demographic and lifestyle characteristics of Japanese adults with UI (n=137).

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Both genders</th>
<th>Male</th>
<th>Female</th>
<th>p*</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>137</td>
<td>54</td>
<td>83</td>
<td></td>
</tr>
<tr>
<td>Age: mean (SD) years</td>
<td>63.6 (7.6)</td>
<td>65.4 (7.2)</td>
<td>62.6 (7.8)</td>
<td>0.036</td>
</tr>
<tr>
<td>BMI: mean (SD) kg/m²</td>
<td>23.7 (3.9)</td>
<td>23.0 (4.0)</td>
<td>24.2 (3.8)</td>
<td>0.090</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>single/divorced/separated</td>
<td>39 (28.5%)</td>
<td>9 (16.7%)</td>
<td>30 (36.1%)</td>
<td>0.014</td>
</tr>
<tr>
<td>married</td>
<td>98 (71.5%)</td>
<td>45 (83.3%)</td>
<td>53 (63.9%)</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>high school or below</td>
<td>102 (74.5%)</td>
<td>44 (81.5%)</td>
<td>58 (69.9%)</td>
<td>0.128</td>
</tr>
<tr>
<td>college/university</td>
<td>35 (25.5%)</td>
<td>10 (18.5%)</td>
<td>25 (30.1%)</td>
<td></td>
</tr>
<tr>
<td>Retirement status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>working</td>
<td>85 (62.0%)</td>
<td>29 (53.7%)</td>
<td>56 (68.3%)</td>
<td>0.086</td>
</tr>
<tr>
<td>retired</td>
<td>51 (37.2%)</td>
<td>25 (46.3%)</td>
<td>26 (31.7%)</td>
<td></td>
</tr>
<tr>
<td>Location of residence</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>metropolitan</td>
<td>45 (32.8%)</td>
<td>13 (24.5%)</td>
<td>32 (38.6%)</td>
<td>0.090</td>
</tr>
<tr>
<td>suburban</td>
<td>91 (66.4%)</td>
<td>40 (75.5%)</td>
<td>51 (61.4%)</td>
<td></td>
</tr>
<tr>
<td>Presence of comorbidity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>no</td>
<td>64 (46.7%)</td>
<td>26 (48.1%)</td>
<td>38 (45.8%)</td>
<td>0.786</td>
</tr>
<tr>
<td>yes</td>
<td>73 (53.3%)</td>
<td>28 (51.9%)</td>
<td>45 (54.2%)</td>
<td></td>
</tr>
<tr>
<td>Smoking status</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>non-smoker</td>
<td>113 (82.5%)</td>
<td>38 (70.4%)</td>
<td>75 (90.4%)</td>
<td>0.003</td>
</tr>
<tr>
<td>current smoker</td>
<td>24 (17.5%)</td>
<td>16 (29.6%)</td>
<td>8 (9.6%)</td>
<td></td>
</tr>
<tr>
<td>Alcohol consumption</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>none</td>
<td>72 (52.6%)</td>
<td>22 (40.7%)</td>
<td>50 (60.2%)</td>
<td>0.026</td>
</tr>
<tr>
<td>monthly</td>
<td>65 (47.4%)</td>
<td>32 (59.3%)</td>
<td>33 (39.8%)</td>
<td></td>
</tr>
<tr>
<td>weekly to daily</td>
<td>36 (26.3%)</td>
<td>19 (35.2%)</td>
<td>17 (20.5%)</td>
<td></td>
</tr>
</tbody>
</table>

*based on chi-square or t-tests; † missing data present; ‡ hypertension, stroke, diabetes, cancer or depression
Overall, 68 (49.6%) subjects who self reported symptoms of incontinence used dietary supplement, but the prevalence for females (n=45, 54.2%) was higher than males (n=23, 42.6%). Prevalence of the five dietary supplement categories is given in Table 3. Apart from supplements listed in the miscellaneous category, the most popular supplement was vitamin C for both genders. Within the miscellaneous supplements, vinegar was ranked the highest, with one-third of users who took it on a regular basis, followed by tree kale juice (10.3%). Further examination on frequency and duration of usage indicated that these popular supplements were often taken once daily and consumed by users within the past two years (data not presented for brevity).

**Discussion**

This is the first study to investigate the prevalence and type of dietary supplements taken by middle-aged and older Japanese adults with UI using validated instruments. The UI prevalence estimates of 8% (male) and 28% (female) were comparable with previous reports for the Japanese population. Although a few subjects with UI perceived the condition as interfering with daily life, the low number seeking help is of concern. It is possible that the older adults were either embarrassed or unaware that the condition is treatable. Education and regular assessment for urinary tract symptoms are needed as people become older.

The overall prevalence of dietary supplementation of 49.6% (42.6% for male and 54.2% for female) among adults who reported incontinence was higher than the 45.8% usage reported for the Japanese general population. The most popular dietary supplements were vinegar, vitamin C and tree kale juice. Vinegar is a widely advertised beverage supplement, while tree kale juice is another natural product commonly available in Japan. It is unknown, however, whether the respondents used these supplements to treat their condition.
Table 3. Prevalence of the five dietary supplement categories and most popular miscellaneous supplements consumed by Japanese adults with UI (n=137).

<table>
<thead>
<tr>
<th>Category</th>
<th>Both genders</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multivitamin</td>
<td>6 (4.4%)</td>
<td>1 (1.9%)</td>
<td>5 (6.0%)</td>
</tr>
<tr>
<td>Beta-carotene</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
<td>0 (0%)</td>
</tr>
<tr>
<td>Vitamin C</td>
<td>10 (7.3%)</td>
<td>3 (5.6%)</td>
<td>7 (8.4%)</td>
</tr>
<tr>
<td>Vitamin E</td>
<td>3 (2.2%)</td>
<td>1 (1.9%)</td>
<td>2 (2.4%)</td>
</tr>
<tr>
<td>Miscellaneous*</td>
<td>63 (46.0%)</td>
<td>22 (40.7%)</td>
<td>41 (49.4%)</td>
</tr>
<tr>
<td>Vinegar</td>
<td>23 (16.8%)</td>
<td>8 (14.8%)</td>
<td>15 (18.1%)</td>
</tr>
<tr>
<td>Tree kale juice</td>
<td>7 (5.1%)</td>
<td>4 (7.4%)</td>
<td>3 (3.6%)</td>
</tr>
<tr>
<td>Energy drink</td>
<td>6 (4.4%)</td>
<td>4 (7.4%)</td>
<td>2 (2.4%)</td>
</tr>
<tr>
<td>Calcium</td>
<td>6 (4.4%)</td>
<td>2 (3.7%)</td>
<td>4 (4.8%)</td>
</tr>
<tr>
<td>Overall supplement use</td>
<td>68 (49.6%)</td>
<td>23 (42.6%)</td>
<td>45 (54.2%)</td>
</tr>
</tbody>
</table>

* 39 other supplements not listed
For the elderly, nutritional deficiencies can lead to systemic changes and can directly affect the health of the kidneys and the bladder. In particular, deficiencies in calcium, zinc, magnesium, vitamin C and vitamin B12 have been reported to contribute to bladder instability. Their supplementation may increase the contractile strength and overall functional capabilities of the pelvic floor muscles, as well as reducing detrusor instability or sensory urgency in women. Nevertheless, the role of these supplements remains controversial. Further research is needed in the clinical efficacy and physiological mechanisms of using dietary supplements as an adjunct therapy for treating UI.

In this study, detailed information on UI and dietary supplementation was obtained from self-report. As with other surveys, especially with elderly subjects, the responses from our participants inevitably incurred some recall error due to possible memory and cognitive loss. Therefore, the short version of ICIQ and face-to-face interview were used to increase the response rate and to improve the accuracy of their answers. All interviews were conducted by the same investigator (second author) to avoid misinterpretation of the questions and to reduce interviewer bias.

It should be noted that the ICIQ-SF neither provides an objective measurement of urine loss nor accounts for seasonal alterations. The instrument has good measurement properties and encompasses all aspects of incontinence. Indeed, despite the differences between clinical measures of symptom severity and the subjective perception of the condition, use of psychometrically robust self-completion questionnaires such as the ICIQ-SF have been recognised as a valid approach for assessing UI.

A major limitation of this study concerned the adequacy of our convenience sample of subjects recruited from community centres, shopping malls and hospital out-patient clinics. Selection bias could not be ruled out because these voluntary participants were not randomly selected. Nevertheless, all participants resided in the community and should still be representative of the underlying population. Also, community-based, randomised sampling would be difficult to implement with high refusal rate expected in practice.

Another limitation was the lack of qualitative data on the perception and belief by the respondents who reported symptoms of incontinence. Opinions about dietary supplementation, facilitators and intentions behind dietary supplement use were not investigated due to time constraints. An in-depth qualitative study to explore these issues is thus recommended, as well as further research to determine the extent of using other types of complementary and alternative medicine by those who have incontinence.

References

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Peer review

Community physiotherapy and continence nurse specialist management of a woman with multiple sclerosis and urinary incontinence: a case study

Abstract

This case study presents information about the care of a woman with multiple sclerosis (MS) who had walking/balance difficulties and urinary incontinence. Post-treatment, the community physiotherapist and continence clinical nurse specialist (CNS) both thought the longer-term outcomes were better than either expected. We have reported this case to stimulate debate about future research on the effectiveness (or not) of transversus abdominis (TrA) contraction along with pelvic floor muscle (PFM) training for urinary incontinence in people with neurological conditions, and to advocate for more deliberate teamwork outside the usual members of the continence team.

Keywords: Urinary incontinence, multiple sclerosis, Clinical Pilates, pelvic floor muscle training.

Introduction

A woman with an 11-year history of symptoms that were diagnosed as relapsing-remitting multiple sclerosis (MS) was referred, during a relapse, to a physiotherapist for rehabilitation of walking and balance problems. When it became clear the patient had bothersome urinary symptoms, including urinary incontinence, the physiotherapist referred the patient to a continence clinical nurse specialist (CNS).

After the patient was discharged from physiotherapy, the two clinicians met in a corridor and experienced an ‘aha’ moment; both had observed better than expected outcomes in this case. They postulated that the interplay between treatments might have contributed to the continence outcomes. A brief summary of the case is presented as a vehicle for discussing the synergy between the separate but potentially complementary interventions (Clinical Pilates and pelvic floor muscle (PFM) training) and the possible benefits to be gained from deliberate teamwork between health professionals.

Ethics approval

The Lower South Regional Ethics Committee confirmed that ethical approval was not needed for this case study report. The patient gave written informed consent for her case to be reported and she was offered this manuscript to check and agree before it was submitted for publication.

Case presentation

The patient was a late-middle-aged, postmenopausal woman with an 11-year history of symptoms of relapsing-remitting MS and worsening urinary symptoms. There was no other important medical history. Medications included oral oxybutynin 5mg twice daily (recently prescribed by the general practitioner), vitamin B12 injections, iron tablets and complementary therapies (evening primrose oil and other dietary measures) but no immunotherapy.

On referral, the patient was bothered by fatigue, although she was able to participate in all activities of daily living and she was on sick leave. The patient lived with her spouse in their own home, which was accessible. She was independently mobile, although the physiotherapist reported the patient had fallen during an assessment of her balance and gait.

Assessment

At her first hospital out-patient continence clinic appointment, the patient reported symptoms of urinary frequency and urgency,
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urge urinary incontinence and stress urinary incontinence. There was no nocturia, dysuria, haematuria or bladder pain. Urinary flow was good and there were no symptoms suggestive of obstruction. Urinary leakage (drops each time) occurred most days. No bowel problems were reported.

A 24-hour bladder diary was completed. The diary showed voided volumes between 100ml and 250ml every two to three hours during the day, two urge episodes and a total fluid intake (all non-caffeinated) of 1.5 litres.

The King’s Health Questionnaire (KHQ) showed some bother for five of the 10 listed bladder symptoms; the most bothersome (“a lot”) were urgency, urge incontinence and stress incontinence. Urinary symptoms had most effect on the role limitations quality of life (QoL) domain, with moderate effect on the emotional and physical/social limitations domains. Overall, the KHQ scores suggested good general health, although the patient's urinary symptoms moderately affected her QoL.

Abdominal examination was unremarkable. Vaginal examination showed no atrophic vaginitis, no demonstrable urinary incontinence with cough and a grade one cystocele on Valsalva. An Oxford Scale grade one voluntary PFM contraction was palpated vaginally. Portable ultrasound bladder scan revealed an elevated post-void residual of 183ml, reduced to 21ml two weeks later after the oral oxybutynin dose was reduced from 10mg to 5mg daily. The midstream urine sample and urine cytology were normal.

Management

Treatment began with an explanation of common urinary symptoms in MS and why these might happen. The patient's current fluid intake of about 1.5 litres per 24 hours with minimal caffeinated fluids was considered appropriate and endorsed. Frequency strategies were suggested; in particular, resisting the temptation to void “just in case”.

PFM training was introduced after the patient felt confident with frequency strategies; it was hoped that improved PFM performance would assist with urge suppression and reduce stress urinary leakage. Although at initial assessment the patient had a Grade i voluntary PFM contraction, a Grade iii contraction was palpated with a concurrent transversus abdominis (TrA) muscle contraction. The patient was familiar with a TrA muscle contraction because this was a key component of the Clinical Pilates programme taught and supervised by the physiotherapist.

The PFM strength training programme began with three contractions held for two seconds each, with a two-second rest between contractions, repeated twice daily. Patient and CNS agreed that, initially, a ‘combined’ TrA and PFM contraction might be a useful way to facilitate a very weak PFM contraction. Each week the programme was progressed, with the addition of either one further contraction or one second longer hold. The training goal was 10 to 12 contractions held for six to eight seconds, each repeated three times daily. After eight weeks, the patient began integrating her exercise into daily activity to establish a routine or exercise habit. She used a voluntary PFM contraction to counteract an intra-abdominal pressure and to suppress urgency, as needed.

Outcome

The patient has continued a daily Clinical Pilates programme, and integrated her PFM training with this throughout (what is now) a two and a half years of active review by the CNS who sees the patient monthly to check post-void residual urine. At 12 months the 24-hour urinary diary data suggested that voiding frequency increased and voided volumes decreased over this period, with fewer urge episodes. Frequency, urgency, urge and stress incontinence were still bothersome, although less so. The KHQ also suggested an improvement in incontinence-specific QoL, with a reduction in role limitations, physical/social limitations and less emotional impact. Patient-reported benefits were a greater sense of symptom control and increased confidence in being able to participate in social activities without worrying about her bladder. This was congruent with the patient-reported outcome relayed by the physiotherapist in the corridor conversation; the patient had told the physiotherapist she had an improved feeling of overall wellbeing that was attributed to a greater sense of symptom control.

Discussion

Based on her prior clinical experience of the nature and usual progression of continence symptoms in people with MS, and the patient's poor PFM function at the time of referral, the CNS was surprised by an apparent improvement and then maintenance in incontinence-specific QoL. In addition, the reasonably slow deterioration in other typical MS bladder symptoms (such as frequency) was unexpected.

It is acknowledged that the variable nature of MS symptoms and progression, and the lack of control comparison, means that it is not possible to say with any certainty that there was an association between the interventions and outcomes.

Clinical Pilates programme and PFM training

Core stability, achieved through training of core muscles, including the abdominal muscles, is thought to be pivotal for efficient biomechanical function during physical activity. Sapsford stated that PFM rehabilitation: “does not reach its optimum level until the muscles of the abdominal wall are rehabilitated as well”, within the abdominal muscle group the focus of training appears to be the TrA. While there is a developing evidence base for co-contraction of the TrA muscles and PFM during spinal, abdominal and pelvic activity in women with and without urinary incontinence, the extent to which training of one can be used to treat dysfunction in the other is contested.
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Clinical Pilates is one approach used widely in rehabilitation to deliver core stability training, although most literature to date concerns its use in sport and musculoskeletal rehabilitation. Kibler et al. defined core stability as:

... the ability to control the position and motion of the trunk over the pelvis to allow optimum production, transfer and control of force and motion to the terminal segment in integrated athletic activities.

In core stability training, initial exercises target muscles of the trunk and pelvis (particularly the TrA) while maintaining a neutral spinal position; exercises are then progressed to incorporate complex movements to create proximal stability for distal mobility. In the present case, the physiotherapist considered that a combination of greater proximal stability and lower limb strength was needed to improve mobility and balance and decrease the risk of falls. We have not found any clinical studies reporting the effect of core stability or TrA training in people with neurological conditions.

The use of PFM training in the management of urinary incontinence is supported by a biological rationale based on the role of the muscles in bladder neck support, their contribution to the sphincteric closure mechanism of the urethra and inhibition of a detrusor contraction with a voluntary PFM contraction.

In women with MS there may be little relationship between their neurological or urinary symptoms and their PFM function, although typically women with MS seem to have very weak PFM that tires quickly and some will also have PFM ‘spasticity’. We agree with Sherburn and Frawley that “there is no substitute for isolated muscle rehabilitation”. Nevertheless, we hypothesise that where a voluntary PFM contraction is not or barely possible due to complex motor and sensory nerve conduction abnormalities such as this case, facilitating a contraction through co-contraction of a functioning TrA muscle is useful and might improve continence outcomes. Further research is needed in this area.

Interprofessional rehabilitation

Only in retrospect did the physiotherapist and CNS recognise the potential synergy in their interventions. Multidimensional community-based neurorehabilitation aims to enhance QoL and function. This multidimensional rehabilitation typically includes contributions from more than one health professional. Teamwork is recognised as a core component, even cornerstone, of contemporary rehabilitation, and it seems that collaborative teamwork is an expected and essential part of the current drive to patient-centred care.

Such interprofessionality occurred retrospectively in this case. As interprofessionality is espoused as a process that will improve patient outcomes, we speculated that prospective and deliberate collaborative and coherent teamwork could have made more use of the synergy between the treatments and perhaps resulted in other gains in effectiveness or efficiency. In the absence of collaborative teamwork, there was a risk the patient could have been overwhelmed and fatigued by multiple interventions and apparently conflicting advice; fortunately, this did not seem to happen here.

References

Peer review

Pelvic floor muscle assessment in standing and lying position using transabdominal ultrasound: Comparison between women with and without stress urinary incontinence

Abstract

The aim of the study was to investigate pelvic floor muscle function in lying and standing positions, using transabdominal ultrasound, to determine if the difference in positions varies between women with and without stress urinary incontinence. This was a two-way mixed-design study. Thirty non-pregnant women participated in the study. The subjects were categorised into two groups: continent and incontinent. The amount of bladder base movement on transabdominal ultrasound was measured in two positions: crook-lying and standing. The testing position was randomly selected and the mean value of three maximal contractions (normalised to body mass index) was taken for analysis. The result of two-way mixed-design ANOVA revealed no significant interaction between continence status and test position for contraction (p=0.60). The main effect of test position on PFM contraction was statistically significant (p=0.02) but the continence status had no significant effect on bladder base displacement (p=0.11). The amount of difference in two positions was not significant between two groups (p=0.61). Bladder base displacement in a cranial direction is greater in the standing position compared to crook-lying position in females, both with and without SUI.

Keywords: Pelvic floor, muscles, ultrasonography, urinary stress incontinence, patient positioning.

Introduction

Urinary incontinence is a major and widespread health-related problem in women. Stress urinary incontinence (SUI) is the most common type of incontinence, involving approximately 50% of women with urinary incontinence. Pelvic floor muscle (PFM) dysfunction has been commonly associated with the development of SUI.

The PFM play an important role in supporting the pelvic viscera and control of their outlets to maintain urinary continence. Previous studies have shown that there is a positive relationship between the increase in PFM function and improvement in SUI. Therefore, assessment of PFM contraction before and after treatment has been commonly accepted as an important parameter in clinical and scientific issues to investigate the efficacy of treatment programmes.

In physiotherapy, transabdominal and transperineal ultrasound are often used to assess PFM contraction. Ultrasound gives direct visualisation and feedback about PFM contraction and exercise performance. Using transperineal ultrasound, the assessor can measure the amount of bladder neck elevation during PFM contraction. However, the transperineal method may be unsuitable for use in certain populations, who are unable...
to tolerate placement of the ultrasound transducer on the perineum. The location of the probe on the perineum can also limit some functional manoeuvres. Transabdominal ultrasound has several clinical advantages and is regarded as being safe, non-invasive and comfortable for the patient. Another advantage is that the patient does not need to be undressed. This may be important in specific populations in which vaginal assessment might not be desirable. The amount of bladder base movement, as an indicator of PFM function, can be measured using transabdominal ultrasound imaging\textsuperscript{11-17}.

Symptoms of SUI (urine leakage during activities) usually occur in standing position due to the influence of gravity on the pelvic floor\textsuperscript{16}. However, PFM function is commonly assessed in lying position. The assessment of PFM contraction in standing position seems essential for functional evaluation, particularly in women with SUI whose symptoms are aggravated in this position.

Some studies have investigated the effect of body positions on PFM assessment\textsuperscript{16,20,21}. These studies used different designs, testing procedures and sample population. Some assessed PFM contraction among continent women's health physiotherapists\textsuperscript{21} or healthy university students\textsuperscript{16} and found significant difference in vaginal squeeze pressure and transabdominal ultrasound scores between positions. However, a study using perineometry found no significant difference in vaginal squeeze pressure between standing and lying positions in incontinent women\textsuperscript{20}.

To our knowledge, no study has evaluated the PFM contraction in standing and lying positions in women with and without SUI using transabdominal ultrasound. The purpose of this study was to investigate the difference in PFM function, assessed by transabdominal ultrasound, in standing and lying positions and to determine if this difference varies between continent and incontinent women.

Material and methods

Subjects

A total of 30 non-pregnant women between the ages of 25 and 50 years were selected from two hospitals in Iran. Subjects were categorised into two groups: continent (n=15, mean age=38.47±5.23 years), and with SUI (n=15, mean age=41.66±6.44 years). A female urologist referred the women with symptoms of SUI. Inclusion criteria were willingness to participate, ability to contract the PFM evaluated by vaginal palpation, or having experienced urine leakage during coughing, sneezing, laughing, lifting and any activity that increased intra-abdominal pressure. Asymptomatic women were subjectively evaluated by the urologist and found to have no symptoms of urinary incontinence. Subjects were excluded if they had a known neurological disease, or a history of pelvic surgery, pelvic fracture, abdominal scar, significant respiratory disease, pelvic organ prolapse, urinary tract infection, vaginal infection and menstruation at the time of assessment. To omit the effect of training, subjects were excluded if they had PFM training within the previous two years.

This research was reviewed and approved by the Human Subjects Committee at the University of Social Welfare and Rehabilitation Sciences. All subjects signed an informed consent form approved by the Human Subjects Committee at the University of Social Welfare and Rehabilitation Sciences before participating in the study.

Procedures

Transabdominal ultrasound measurement of PFM contraction was performed in two positions: crook-lying and standing. The testing position was randomly selected. In crook-lying, supine position, subjects used one pillow under the head, with the hips and knees flexed to 60° and the lumbar spine was positioned in neutral. In standing, participants stood in a comfortable position, with feet apart at shoulder width and hands by their sides.

A diagnostic ultrasound imaging unit set in B-mode (Ultrasoundix-ES500, Canada) with a 3.5 MHz curved array transducer was used for ultrasound measurement. We followed the procedure described by others\textsuperscript{11-17} to measure the amount of bladder base movement as indicator of PFM contraction. A standardised procedure for bladder filling was used prior to imaging to ensure that subjects had sufficient fluid in their bladders to allow clear imaging of the base of the bladder. The women were asked to void one hour prior to testing and then to fill their bladder by consuming 600–750 ml of water in half an hour, one hour prior to testing. The ultrasound transducer was placed transversely in the midline on the supra-pubic region and angled in a caudal/posterior direction to obtain a clear image of the inferior-posterior aspect of the bladder. A marker was placed on the bladder base on the ultrasound screen at the rest. The participants were then asked to perform maximal voluntary PFM contraction; the instructions were to “draw in and lift the PFM, and hold the contraction while breathing normally”. When the contraction was visualised on the ultrasound screen, the image was captured at the point of maximal displacement. The amount of bladder base displacement from resting position at the end of each
contraction was measured in millimetres (mm). The ultrasound transducer was not moved during the testing procedure. Only contractions with cephalic movement of the bladder base were measured as correct. The ultrasound transducer was not displaced during the testing procedure and the subjects were not able to see the ultrasound screen so that the training biofeedback effect could be omitted. Subjects performed three maximal contractions. All contractions were held for three seconds, with a rest of 10 seconds between each contraction. The mean of three measurements was used for statistical analysis. The reliability of transabdominal ultrasound measurement for PFM contraction has been previously established.

Data analysis
In all subjects, the calculated transabdominal ultrasound measurement for PFM contraction was normalised to their calculated Body Mass Index (BMI). There is a considerable body of literature which shows that body size has a major role in the muscle performance, strength or function. It is reasonable to expect that individuals with a higher BMI have stronger muscle strength. In this study, like our previous study, the calculated transabdominal ultrasound measurement of PFM contraction was normalised to their calculated BMI. The normalised data were used in analysis.

We tested the difference in PFM contraction between positions and groups by using two-way, mixed-design ANOVA, accounting for position (crook-lying versus standing), continence status (continent or incontinent) and interaction of position and health status effects. An independent t-test was used to compare the amount of difference in PFM contraction between positions (standing minus crook-lying) across women with and without SUI.

Results
The demographic data for the subjects are presented in Table 1. Statistical analysis showed no significant difference in subjects' age (p=0.15), height (p=0.28), weight (p=0.56) and parity (p=0.26) among the two groups. Detailed descriptive statistics (mean ± SD) for normalised ultrasound measurement and absolute value of the amount of bladder base displacement (mm) are presented in Table 2.

The result of two-way, mixed-design ANOVA revealed no significant continence status by position interaction effect for ultrasound measurement of PFM contraction at α=0.05 (f=0.28, p=0.60). The main effect of test position on PFM contraction was statistically significant (f=6.03, p=0.02). Overall, the movement of the bladder base in a cranial direction, although not statistically significant, was greater in the standing position compared to lying in both females with and without SUI (Table 2). The continence status had no significant effect on PFM movement (f=2.65, p=0.11). The mean difference in PFM movement (normalised to BMI) as measured by movement in the bladder base in a cranial direction between positions was 0.07 and 0.04 for continent and incontinent women respectively. The amount of difference in positions was not significant between the two groups (p=0.61).

Discussion
The results of this study indicate that movement of the bladder base in a cranial direction, although not statistically significant, was greater in the standing position compared to crook-lying, regardless of health continence status. This finding is in accordance with other studies showing a significant difference in the amount of bladder base displacement during PFM

<table>
<thead>
<tr>
<th>Variables</th>
<th>Continent (n=15)</th>
<th>Incontinent (n=15)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td>38.47 ± 5.23</td>
<td>41.66 ± 6.44</td>
<td>0.15</td>
</tr>
<tr>
<td>Weight (kg)</td>
<td>67.20 ± 9.36</td>
<td>69.35 ± 10.52</td>
<td>0.56</td>
</tr>
<tr>
<td>Height (cm)</td>
<td>160.53 ± 6.78</td>
<td>158.14 ± 4.72</td>
<td>0.28</td>
</tr>
<tr>
<td>BMI (kg/m^2)</td>
<td>25.61 ± 3.50</td>
<td>27.52 ± 4.14</td>
<td>0.14</td>
</tr>
<tr>
<td>Parity</td>
<td>2.60 ± 0.9</td>
<td>3.06 ± 1.2</td>
<td>0.26</td>
</tr>
</tbody>
</table>

BMI = Body Mass Index
contraction between standing and lying position, which can be seen using transabdominal ultrasound\textsuperscript{16,21}.

The lifting of the pelvic floor, as seen via transabdominal ultrasound, provides information about the functional status of PFM. Via the ultrasound screen, the elevation of the bladder base can be seen and is due to the tensioning of the fascia during PFM contraction\textsuperscript{27,28}.

Investigators have attributed the greater pelvic floor displacement in standing position compared with lying position to the effect of gravity. It is assumed that gravity improves the length-tension relationship of the PFM as a result of the weight of pelvic viscera that act on the pelvic floor muscles\textsuperscript{16,21}. Additionally, gravity gives proprioceptive feedback about the correct direction of contraction and stretch facilitation to the PFM contraction.

It has been suggested that a similar mechanism facilitates deep abdominal muscle contraction in the four-point kneeling position, compared with the supine position, for patients with low back pain who have difficulty activating their deep abdominal muscles\textsuperscript{29,30}. However, the participants in similar previous studies were continent women’s health physical therapists\textsuperscript{31} or healthy university students\textsuperscript{16} and those with SUI were not included. In this study, our data showed that the difference in bladder base movement between positions, although not statistically significant, was greater in continent women (0.07) compared to those with SUI (0.04). The small difference between positions in incontinent women may also be related to the fact that the position of the bladder base at rest in standing is probably lower in these women compared to continent women but the resting level of the bladder base at rest in the supine position is identical for both group because gravity is not a factor.

One of the limitations of transabdominal ultrasound measurement is the lack of a fixed bony landmark as a reference point and measurement of the bladder base displacement is only expressed relative to a movable starting point rather than an anatomical landmark, which is used in transperineal ultrasound\textsuperscript{14}.

Two methods of probe placement in transverse or sagittal plane over the lower abdomen have been offered in the literature\textsuperscript{13,15}. In this study, the probe was transversely placed on the supra-pubic region. The value of the transverse view is that it allows for evaluation of both sides of the pelvic floor at once. Another advantage is that any pressures by the transducer against the abdominal wall, and movement of the abdominal wall, are dissipated by the fluid-filled bladder and so do not affect the PFM displacement values.
Another limitation in our study is the sample size. We excluded the subjects with urge or mixed urinary incontinence in order to assess the correlation in the more homogenous group. However, power calculation was not done and this could account for lack of significance.

Conclusion

This study assessed bladder base movement, which is a measure of one aspect of PFM function in standing and lying positions in women with and without SUI using transabdominal ultrasound. Our data indicate that displacement of the bladder base in a cranial direction, although not statistically significant, is greater in the standing position than crook-lying.

References

Parents describe experiences in KEEA survey

In September 2009 a survey was mailed out to the 438 parents and health professionals on the Kiwi Enuresis Encopresis Association (KEEA) Children’s Division of New Zealand Continence Association (NZCA) database. The response rate was low, with only 30 surveys returned, so the data could not be generalised; however, the comments section of the surveys that were returned showed a depth of feeling among those parents who did respond. These comments provide an insight into the wider impact of incontinence on children and their families.

Comments from parents included:

“It [faecal incontinence] has changed my son for the rest of his life, the teasing from other kids, the length of time it took us to get help so we could understand him and help him, the constant negative treatment from being told he had just a behaviour issue. The pressure on the family was huge and I will never look back on this time with a smile, as it was bloody hard work. It should be made so much more aware in schools and also at your local general practitioner (GP).”

“Very stressful on the whole family, our relationship and […] has been bullied and stigmatised at school. All of this and the encopresis itself has affected […] attitude, behaviour and self-esteem. We have been battling for four years and it is exhausting.”

“I’ll never forget what a big impact and stress this soiling problem was in our lives for at least 10 years.”

“ […] has affected our family dynamics, my son’s self-esteem and behaviour and my own confidence (and health) as his mother.”

“Confidence destroying on child. Social stigma [is] an issue. Limited support, initially for parents and family going through this. Medical profession is ignorant as to how damaging it is on family and relationships and normal social development of the child.”

“As a family it has been a huge challenge […] her behaviour at home has sometimes just about driven us all mad, and we are never quite sure if it is because she is feeling ‘yuk’ or she is just badly behaved.”

They may be over-representative of parents who are not coping as well as those who chose not to respond. Bias or no bias, there is much work still to be done to adequately support parents and children with wetting and soiling problems.

I have been unable to find any literature specific to the impact of childhood incontinence on the family. There is a small amount of literature on the effects on the family of children with other chronic health conditions, for example cystic fibrosis and reflux. Many of the effects can be extrapolated to the incontinence context.

Kratz and colleagues’ found that challenges included: “… social isolation, strained relationships and ongoing frustrations with health care and educational systems”. Parents would, they suggest, benefit from: “… being prepared, connecting with peers, becoming an advocate, developing partnerships and caring for one’s self.” Similarly, Sullivan-Bolyai and colleagues’ suggest that parents have four main roles that they are expected to perform when caring for a child with chronic illness: managing the illness; identifying, accessing and coordinating resources; maintaining the family unit; and maintaining self.

Recommendations for practice

Health professionals can support parents by:

- Keeping up-to-date with children’s continence best practice so that advice is accurate and empowering.
- Taking time to listen to parental concerns and involve parents and the family in care planning. Determine who will be coordinating care.
- Making it clear to parents and family that achieving or re-achieving continence is a journey, not just a destination – it will take time.
- Providing relevant information and being open to questions.
- Referring early to the school public health nurse, paediatric outreach nurse, specialist continence nurse, or paediatrician.
- Referring to support services, for example, counselling, social worker, Work and Income New Zealand (WINZ), NZCA or CFA.
- Follow-up with a regular phone call between appointments to keep the lines of communication open.
- Putting parents in touch with other parents who have children with the same problem.

References


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Email writenz@gmail.com
Dr Gordon Baron-Hay, was Patron of the Continence Foundation of Australia (CFA) WA Branch from its inception in 2002 until he died on 26 January 2011. While his initial role with CFA WA was to provide governance for the Home and Community Care funded program – the Continence Advisory Service of WA, when the Continence Advisory Service became incorporated in its own right as the CFA WA Branch, Gordon assisted in establishing a Board for the new organisation.

He became the inaugural President of the Board, a position he held up until his death. In this role his commitment was tireless and he attended training courses on governance issues, playing a pivotal role in developing governance standards for the Board. He was an irreplaceable guiding light for the Board and had a calm and thoughtful approach to dealing with difficult matters.

He took an active interest in the organisation and, in addition to his role as President, regularly helped out at community events, Continence Awareness Week and was on the Scientific Committee for the Continence Foundation of Australia conference held in Fremantle in 2004.

Born in Western Australia on 26 May 1935, he excelled as a sportsman playing rugby, hockey, golf and tennis and was an avid yachtsman.

A surgeon with a special interest in paediatric surgery, he was one of the first medical students to attend the School of Medicine at the University of Western Australia (UWA).

Gordon undertook his surgical fellowship in Scotland and was admitted for membership of the Royal College of Surgeons. Upon his return to Western Australia he took up an appointment in general surgery at Royal Perth Hospital. He was later offered a position as a paediatric surgeon at Princess Margaret Hospital for Children (PMH), where he continued working until his retirement in 2002.

Many children and families owe him a debt of gratitude for his skilful surgical work, which was lifesaving in a number of cases. Fondly known as “the Baron”, he instilled in his students the need to listen to their patients and he had an incredible skill of never forgetting the names of the children that he had operated on.

As Director of Surgical Services, Clinical Care Unit at PMH he developed an appreciation of the importance of the work conducted by Christine Harkess a continence nurse who had established a successful paediatric nocturnal enuresis program at PMH. Gordon encouraged Chris to train many nurses throughout Western Australia to run the program in their local communities. As a result many Western Australian children have had treatment to successfully overcome their bed wetting problems.

Our sincere condolences to his wife Pat, his family and friends.

Deborah Gordon, CEO Continence Advisory Service of Western Australia

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The remarkable story of the Continence Foundation of Australia – an organisation created to tackle the stigma and apathy attached to incontinence

For successful progress and evolution, a group should be always aware of the why and how of its formation and its original mission and vision. Hence, I present this brief history of the Continence Foundation of Australia.

1986–1989: the antenatal era

The collaboration of like-minded leaders in the mid-1980s would prove to be the forerunner of the National Task Force on Incontinence (NTFI). An informal meeting was held and those who attended included: the late Robert Taylor (from continence products company Sancella), Cynthia Wellings, a continence nurse adviser at Heidelberg Repatriation Hospital, Cliff Picton, CEO of the Australian Council Of The Ageing (ACOTA), and Rosemary Calder, Project Officer at ACOTA. Soon the Australian Council for the Rehabilitation of the Disabled (ACROD) joined and, not long after, a Continence Working Party was established with a broad national participation of medical specialists, nurses, physiotherapists, and representatives from non-government organisations and government agencies.

In 1986, this group established the NTFI to promote incontinence as a major health issue in the Australian community. They put in place processes to document the extent of incontinence in Australia, lack of services and to develop a broad outline of what services were needed and a strategy for change. Through meetings and workshops, it was determined that there was a great need to develop effective approaches to the identification, diagnosis, treatment and management of incontinence throughout the community, particularly for older and people with a disability.

In June 1988, a five-year grant from the Department of Community Services enabled the establishment of the National Continence Secretariat (NCS). Following consultation and liaison with the emerging State Continence Promotion Groups, a Constitution was developed. The Continence Foundation Australia (CFA) was incorporated on 31 October 1989 and the inaugural Board elected with David Fonda as its Foundation President. The CFA was officially launched at the second National Conference on Incontinence in Sydney in November 1989.

1989–1994: running on empty

The CFA Board recognised that its sustainability depended heavily on its successful interaction with government, at both state and federal level. Considerable effort was directed to nurturing these relationships with ever-changing key government players. Considerable effort was also made to lobby the products industry to provide unconditional grants to help keep the organisation afloat. The annual scientific meetings became an important source of funding via sponsorship by the products industry. State branches were emerging with lots of enthusiasm and zeal. Projects of all sorts began to be funded.

Presented by David Fonda
Consultant Geriatrician and Rehabilitation Specialist
Cabrini Medical Centre, Melbourne, VIC
Associate Professor Monash Medical School, Melbourne, VIC
1995 to today

The Board and staff of the CFA have worked tirelessly from its earliest inception to bring the CFA from a fledgling collaboration to a more secure and vibrant organisation. A significant leap forward in the life of the CFA was the implementation of the National Continence Helpline, a project managed by the CFA for the Australian Government.

A major outcome following years of CFA lobbying was the creation of the National Continence Management Strategy (NCMS) first funded in the 1998 Australian Government Budget. Under the NCMS more than $50m has been allocated for a broad range of initiatives in the areas of public awareness, professional education and research. More than 120 projects have been funded.

Another significant step was the achievement of peak body status in 2002, which ensured ongoing government funding, subject to satisfactory performance. Lobbying for funding for the Continence Product Scheme, Continence Awareness Week, leadership on the international front through the International Continence Society, the national newsletter (Voice) now Bridge, *The Australian Journal of Incontinence*, now the *Australian and New Zealand Continence Journal*, and the annual National Conference on Incontinence are just a few of the ongoing activities.

During these 21 years the CFA has reduced the issues of stigma and taboo that surround incontinence and to do this has required the selfless work of many of you here today.

At this, the 19th National Conference on Incontinence, our 21st birthday, the CFA can be proud that its leadership team, Board and members have never lost sight of the reason for its existence: to represent the needs and interests of people with incontinence and those who care for them. The CFA can acknowledge its considerable achievements, with the hope of celebrating many more years of partnering with stakeholders to work towards an increasingly continent community.
**Australian news**

**Bladder Bowel Collaborative**

The Directors of the Continence Foundation of Australia (CFA) are pleased to advise that we have been successful in securing Australian Government funding under the National Continence Programme for the delivery of the Bladder Bowel Collaborative project. The project was approved in late December 2010 and operates for the period 1 January 2011 to 31 June 2014.

The new programme includes continued funding for the core activities of the CFA, including the National Continence Helpline, along with new initiatives such as:

- The establishment of a health promotion officer in Victoria, New South Wales, South Australia, Queensland and Western Australia.
- The development of a centralised website for health professionals to house all continence-related information (best practice guidelines, resources and so on).
- A biannual paediatric continence education program.
- Use of webinars targeting health professionals working in rural and remote Australia.

Staff at the National Office of the CFA will work with our members to deliver programmes specified under our new funding agreement.

**Special project helps kids at school**

The CFA is undertaking a new project, working in partnership with health and education professionals, government and peak bodies, to support children with continence problems within the school system.

In December 2010, the CFA hosted a Continence in Schools Stakeholders Forum, which brought together a range of health and education professionals who play a key role in the management of incontinence among school-aged children. Recurring themes identified at the forum include the need to improve school toilets, better education for teachers about continence issues and mapping services and resources.

The first phase of the project is now under way, with the finalisation of strategies and planning, informed by suggestions provided at the forum. If you would like to receive updates about the continence in schools project, please e-mail: media@continence.org.au

**Every Body’s Business heads to Canberra**

The next Every Body’s Business education forum will be held in Canberra during March 2011. *Aged care and continence* will be the theme of the day, with more details available on our website: www.continence.org.au

**World Continence Week, 20–26 June 2011**

In 2011, the CFA will align Continence Awareness Week in Australia with the International Continence Society (ICS)’s World Continence Week. This was put to a vote of members at the CFA’s 2010 AGM and is expected to increase the global profile of the work being done in Australia, as well as support the national and international efforts of our colleagues.

World Continence Week 2011 will take place 20–26 June 2011, with this year’s theme dedicated to *Exercise and the pelvic floor*. This topic was selected to support the launch of the Pelvic Floor First project and will be supported by a range of communication activities and events in the months leading up to World Continence Week. CFA members will receive an information kit during May. If you would like more information at any time, please email media@continence.org.au

**National Conference on Incontinence**

The 19th National Conference on Incontinence was held at the Alice Springs Convention Centre, in the Northern Territory, 27–30 October 2010. Attended by 422 delegates, the programme featured a range of national and international speakers covering topics such as the ageing bladder and bowel, nocturnal enuresis, pelvic pain, dermatological advances in continence care, and meeting the needs of Indigenous clients in western model health services.

We thank our international speakers for their contributions:

- Catherine DuBeau, Professor of Medicine and Clinical Chief of Geriatrics, University of Massachusetts, United States of America.
Thank you to our members for their continued support of the national conference. We look forward to seeing you at the 20th National Conference on Incontinence, at the Crown Convention Centre, Melbourne, 16–19 November 2011.

Election of Ordinary Director

Under the Constitution of the CFA, one of the three Ordinary Directors elected by the members retires from office at each AGM. This year we had three nominations for the vacant Ordinary Director’s position due to Kay Josephs retiring after a three-year term and eligible for re-election. The AGM confirmed the election of Janet Chase to the Board. The CFA Board would like to thank Kay Josephs for her untiring support of the CFA and especially for her contribution as a Director over the last seven years, having been first elected to the Board in December 2003.

Janet Chase is a physiotherapist whose chosen area of practice for 30 years has been the treatment of incontinence in women, men and children. She has a strong interest in incontinence education. Janet co-wrote the curriculum and set up the postgraduate continence course for physiotherapists at the University of Melbourne, that now attracts interstate and international students. She has worked at Southern Continence Clinic, Melbourne, for 18 years and continues to do so, and is also involved in advancing the continence care of children. She is presently practising in paediatric continence clinics at Monash Medical Centre, Cabrini Hospital and The Royal Children’s Hospital. She has undertaken research in both women’s and paediatric continence care and has published locally and internationally. Janet has been active in the CFA since it was established and served on the National Continence Management Strategy Advisory Committee. She is currently Chairperson of the CFA Paediatric Advisory Subcommittee, committee member of the Physiotherapy Group of CFA Victoria and a Board member of the International Children’s Continence Society.

Barry Cabill, CEO CFA

New Zealand news

Welcome to 2011. As I write this, the North Island of New Zealand has had a storm lashing with some flooding, but it is nothing in comparison to the massive flooding experienced by so many Australians in the last month. We would like to express our sympathy for what they have been through there.

We so appreciate the support that the New Zealand Continence Association (NZCA) receives from the CFA. For a number of years the Foundation has been very generous in sharing information resources with us and it has now offered for us to partner with it in Continence Awareness Week activities.

Originally, New Zealand’s Continence Awareness Week was the last week in September and in Australia in August. ICS announced an international week in June several years ago. We changed our date last year but Australia needed agreement from the government as their funding body. The CFA will realign dates this year.

After discussions with the CFA it was decided that we would work together to develop an awareness programme each year. ICS does not choose a theme and we have found this is important to get the media interested, so Australia and New Zealand will launch the Continence Awareness Week theme Pelvic Floor First in June. The programme will focus on promoting continence health in gyms and educating gym instructors. NZCA office administrator Zoe is currently working on a database listing every gym in New Zealand.

For the past two years, we have successfully run education days but we acknowledge that it is important to have the New Zealand Qualifications Authority (NZQA) recognise our courses. The way to do this is through a recognised training organisation. We have partnered with Careerforce to do this. We have developed the first unit standard at entry level. Eventually the education will include higher levels of learning. Education at the entry level will be taught in-house at rest home facilities but as we move through the levels the NZCA and other organisations will provide training sessions.

Jan Zander, CEO NZCA
Experts from the disciplines involved in continence treatment, management and promotion and those who are expert in research methods and statistical analysis are invited to nominate to join the Australian and New Zealand Continence Journal Peer Review Panel.

Peer review was introduced to the journal in 2004 and began an exciting new era in our publication. Peer review of articles is aimed to increase the calibre of academic and research papers published and to raise the standing of the journal.

The journal is proud to promote Australian and New Zealand scholarship.

For details regarding the Peer Review Panel, please email Jacinta Miller jacmil@bigpond.com

Nominations sought for Peer Review Panel
20th National Conference on Incontinence

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2. Ungar A. Movicol in treatment of constipation and faecal impaction. Hosp.Med.2000; b1 (1); 37-40
6. MOVICOL Approved Production Information 2010
8. IMPACT Bowel care for the older patient. A guide to the management of constipation and faecal impaction in the older patient. 2010 developed by a multi-disciplinary team of healthcare professionals with the assistance of an unrestricted grant from Norgine Pty Limited. 3/4 Rodborough Rd Frenchs Forest NSW 2086.
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