



Is the belief that urinary incontinence is normal for ageing related to older Canadian women's experience of urinary incontinence?

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Received: 13 June 2018 / Accepted: 7 February 2019 / Published online: 22 February 2019
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Abstract

Introduction and hypothesis Many women consider urinary incontinence (UI) a normal part of ageing. This belief may contribute to delays in treatment seeking. This study examined the relationship among holding that belief, UI type and severity, impact on quality of life, management and healthcare seeking in a sample of older community-dwelling Canadian women.

Methods This was a secondary analysis of a controlled trial examining the impact of continence promotion workshops on UI self-management. All women who consented and provided baseline data were included in this analysis regardless of eligibility for the main study.

Results The sample included 4446 women (2022 with UI) of mean (SD) age 78.2 (9.0) years and BMI 26.6 (5.6). The belief that UI is normal for ageing was held by 2149 women [48.3% (83.7% of 1798 incontinent women)] and was not associated with age [adjusted odds ratio (OR) (95% CI): 1.00 (0.99, 1.01), $p = 0.72$] or perception of overall health. Women with this belief had more impaired QoL compared with the women who felt UI was not normal for ageing [mean (SD) 83.9 (19.4) vs. 87.4 (18.6) ($p < 0.01$)]. This belief remained unaffected by daily UI and pad use up to 2/day.

Conclusions More than two-thirds of women thought UI normal for ageing. This belief was not associated with age or perception of overall health. More severe incontinence and greater quantities of pad use did not make women less likely to hold this belief.

Keywords Urinary incontinence · Community dwelling · Healthcare seeking · Age · Quality of life

Introduction

Urinary incontinence (UI), defined as the involuntary loss of urine, is common in the general population and its prevalence increases in association with increasing age as does the prevalence of lower urinary tract symptoms (LUTS) [1, 2]. UI is a distressing condition which has a profound impact on quality of life (QoL) [2–5] and is associated with significant morbidity such as falls, depression and urinary tract infections and, for older people, increases the likelihood of institutionalisation

[6–9]. Although the severity of LUTS or concomitant UI and LUTS increases the likelihood of seeking health care, many women with UI fail to seek treatment and may consider it to be a normal part of ageing [2, 6, 10, 11]. Holding this belief may serve to normalise the condition and make the well-described delays in treatment seeking more likely [10, 12]. Severity of UI, younger age and a greater severity of disease experience are known to influence the likelihood of seeking help, but in a large community study, only 15.3% of people > 60 years of age with UI expressed a felt need for healthcare [13, 14].

Whether those women who believe UI is normal for ageing are more mildly affected or whether their UI has a greater or lesser impact on their QoL is not known. There are few data on the prevalence of UI and LUTS in Canadian women and their effect on QoL; in the 2007 Canadian Urinary Bladder Survey, 43% of the 518 female respondents reported at least one LUTS and 29% reported UI, but no quality of life outcomes were reported [15]. There are no Canadian data which investigate the relationship between quality of life and type or frequency of UI or both, or how it might relate to the patient's perceptions of their UI.

Abstract presentation Annual Scientific Meeting of the International Continence Society, Florence, Italy, September 2017

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The aim of this study therefore was to examine the relationship between having the belief that UI is normal for ageing, UI type and severity, impact on quality of life, management and healthcare seeking for UI and LUTS in a sample of older community-dwelling Canadian women.

Methods

This was a secondary data analysis of the Canadian Institutes of Health Research-funded Continence Across Continents To Upend Stigma and Dependency (CACTUS-D) study. The trial protocol has been reported elsewhere, but briefly CACTUS-D was a two-arm, multi-national randomised controlled trial to examine the impact of continence promotion workshops on self-management on QoL in community-dwelling older women with UI [16]. The control intervention was a generic “health in later life” workshop. Baseline data were collected from both intervention and control groups.

Participants

All women who attended CACTUS-D workshops who consented and handed in their questionnaires were included in this analysis. The sample included baseline data from women who were both eligible (had UI) and ineligible (no UI) for participation in CACTUS-D.

Setting

Community organisations in and surrounding Edmonton and Montreal which hosted health and continence promotion workshops, as per the CACTUS-D protocol.

Inclusion/exclusion

All complete data collected from the workshops, including women eligible for participation in the main study (UI of two or more times per week, who had not sought professional advice for UI symptoms within the past year) and ineligible for inclusion (no UI), were included in this analysis. Women who contributed ≤ 18 responses to the Incontinence Quality of Life (I-QOL) questionnaire were excluded from analyses where IQoL was a relevant factor [17]; otherwise, the entire sample was used.

Recruitment

Women were recruited via advertising in community organisations which then hosted the workshops. Participation was limited to those who were aware of the workshops and who were interested in participating.

Measures

The survey data included questions to determine overall state of health, physical activity, falls, frequency and type of incontinence using the validated International Consultation on Incontinence Female Lower Urinary Tract Symptoms (ICIQ-FLUTS) scale, help-seeking behaviour, healthcare use and quality of life using the I-QOL scale and Short Form-12 (SF-12) [18–20].

Analysis

Data were analysed in STATA version 12.1 and described the characteristics of the sample, the distribution of LUTS/UI, UI severity and quality of life. The relationship between symptom severity and QoL was examined using correlations and compared with women without LUTS/UI using unpaired *t*-tests. Multivariable logistic regression analyses described the relationships among diagnosis, severity and impact on QoL using the belief that UI is normal for ageing as the dependent variable.

Ethics approval was granted for this secondary study by the Health Research Ethics Board at the University of Alberta (Pro00039127_AME7).

Results

The overall sample included 4446 women, with a mean (SD) age of 78.2 (9.0) years and mean (SD) BMI of 26.6 (5.6). Women without incontinence numbered 2424 (54.5%). Of the 2022 (45.5%) women with UI, 729 (16.4%) had a diagnosis of stress UI, 453 (10.2%) urgency UI, and 840 (18.9%) mixed incontinence symptoms (Table 1). There was no difference in mean age or BMI between the groups.

A total of 3579 women completed ≥ 19 items on the I-QOL; their mean (SD) I-QOL score was 84.7 (19)/100; 2149 (68.6%) women held the belief that urinary incontinence is normal for ageing.

Table 1 Demographics

Variable	Overall	I-QOL ≥ 19
<i>N</i>	4446	3579
Age (years), mean \pm SD	78.23 \pm 8.99	77.17 \pm 8.95
BMI (kg/m ²), mean \pm SD	26.55 \pm 5.55	26.68 \pm 5.67
Type of urinary incontinence, <i>n</i> (%)		
None	2424 (54.52)	1794(50.13)
Stress UI	729 (16.40)	651(18.19)
Urgency UI	453 (10.19)	387(10.81)
Mixed UI	840 (18.89)	747(20.87)

Incontinence diagnosis (stress, urgency, or mixed UI) was significantly associated with BMI [adjusted relative risk ratios (95% confidence interval)]: stress UI 1.02 (1.03, 1.05), $p < 0.001$; urgency UI 1.04 (1.02, 1.06), $p < 0.001$; mixed 1.07 (1.06, 1.09), $p < 0.001$, but not age [adjusted relative risk ratios: stress 0.98 (0.97, 0.99), $p < 0.001$; urgency 1.00 (0.99, 1.02), $p = 0.501$; mixed 1.00 (0.99, 1.01), $p = 0.635$]. I-QoL scores were statistically significantly decreased in association with increasing frequency of urine leakage [adjusted regression coefficients (95% CI): once or less per week -3.51 ($-4.74, -2.28$), $p < 0.001$; 2–3 times per week -8.56 ($-10.14, -7.0$), $p < 0.001$; once per day -11.24 ($-13.04, -9.44$), $p < 0.001$; several times per day -22.67 ($-24.53, -20.82$); $p < 0.001$]. All types of UI were associated with a decrease in I-QoL score: stress incontinence [adjusted regression coefficients (95% CI): (-3.18 ($-4.51, -1.85$), $p < 0.001$], followed by urgency UI [-5.44 ($-7.08, -3.80$), $p < 0.001$] and mixed UI [-14.46 ($-15.93, -13.0$), $p < 0.001$]. Having two or more urinations per night was statistically significantly associated with decreased quality of life [adjusted regression coefficients (95% CI): 2 per night -3.23 ($-4.79, -1.67$), $p < 0.001$; 3 per night -7.86 ($-9.63, -6.08$), $p < 0.001$, 4 or more -15.94 ($-18.46, -13.43$), $p < 0.001$]. Having the belief that UI is normal for ageing was statistically significantly associated with frequency of urine leakage up to once per day and with number of pads used up to 2 per day (Table 2).

Belief that UI is normal for ageing was not associated with age [adjusted odds ratio (OR) (95% CI): 1.00 (0.99, 1.01), $p = 0.719$] or perception of overall health [adjusted OR (95% CI): fair 0.80 (0.44, 1.46), $p = 0.462$; good 1.11 (0.62, 2.08), $p = 0.733$; very good 0.928 (0.57, 1.91), $p = 0.973$; excellent 1.01 (0.53, 1.91), $p = 0.973$].

Women who held the belief that UI is normal for ageing were not more likely to suffer from any particular type of

incontinence ($\chi^2 = 1.4$, $df = 5$, $p = 0.5$). However, those women who believed that incontinence is normal for ageing did have a more impaired QoL than those who did not [mean (SD) 83.89 (19.41) vs. 87.42 (18.61) ($p < 0.00001$)] (Table 1).

Women who believed that UI is normal for ageing were less likely to have previous use of pelvic floor exercises [adjusted OR (95% CI): 0.85 (0.72, 1.01), $p = 0.058$], although this did not reach statistical significance. They were no less likely to have previously sought care for their UI than women who did not think incontinence normal [adjusted OR (95% CI): 0.88 (0.72, 1.09), $p = 0.247$].

Discussion

For these older community-dwelling women, as expected, urinary incontinence had a significant demonstrable impact on QoL. Whereas in previous reports urgency incontinence was associated with a greater negative impact on QoL, this was not the case for these women [2–5]. More than two-thirds of women held the belief that incontinence is normal for ageing. This belief held no association with age or perception of overall health despite the expectation that older, sicker women might be more likely to think this whilst normalising their condition because of its longstanding course or concurrent morbidity. Women held this belief even though they had up to twice daily incontinence episodes and used up to two pads daily. More severe incontinence and greater quantities of pad use did not make women less likely to hold this belief, illustrating either the extent of public understanding of incontinence as a medical rather than social condition or the overriding negativity of beliefs associated with ageing [21].

In contrast, women who thought incontinence normal for ageing were less likely to have performed previous pelvic floor exercises but were no less likely to have sought healthcare.

There was no association between the belief that UI is normal for ageing and UI subtype; it was anticipated that such women would be more likely to suffer stress incontinence, as they may have considered this an expected consequence of childbirth. Compared with those women who thought incontinence was not normal for ageing, women who thought incontinence normal for ageing reported a statistically significantly worse impact of UI on their QoL.

The limitations of this secondary study follow from the limitations of the primary study. The selection method and criteria for participants excluded those with dementia and those living in care homes. Additionally, data were collected from only those women who were aware of and wished to participate in the health promotion workshops. This excluded those women who did not visit the community organisations where workshops were held, those who were unwilling to participate in social events, or those who were homebound

Table 2 Multivariable logistic regression exploring the association between the belief that urinary incontinence is normal for ageing with frequency of UI episodes and number of pads used

	Adj OR (95% CI)	<i>p</i> value
Frequency of urine leakage		
Never	1	
Once or less per week	1.69 (1.38, 2.08)	< 0.001
2–3 times per week	1.88 (1.43, 2.48)	< 0.001
Once per day	1.64 (1.18, 2.28)	0.003
Several times per day	1.06 (0.75, 1.50)	0.751
Number of pads used per day, <i>n</i> (%)		
0	1	
1	1.54 (1.25, 1.91)	< 0.001
2	1.39 (1.03, 1.87)	0.031
3	1.01 (0.67, 1.53)	0.949
4 or more	0.96 (0.60, 1.55)	0.876

for various reasons, including severe incontinence or feelings of stigma toward their incontinence. Additionally, participating women, as members of community organisations, were more likely to be motivated to learn about health and ageing and may well have held more positive views than women who did not come forward [22, 23].

More than two-thirds of the women surveyed for this study believed UI to be normal for ageing. This perception appears to have changed little over the past decade despite advances in treatment and national public awareness campaigns [12, 24, 25].

Attitudes to UI in women are recognised as a barrier to healthcare seeking; this may be amenable to awareness raising and education about the potential for management amongst older community-dwelling women. UI is not normal for ageing, nor is it a condition older women need to ‘tolerate’. Given the significant impact of UI, awareness raising and education may have a considerable effect on the quality of life of older community-dwelling women and warrants further investigation.

Acknowledgements We thank Quazi Imaduddin Ibrahim for his assistance with the statistical analysis.

Funding Funding provided by: Canadian Institutes of Health Research (CIHR), Alberta Innovates Health Solutions (AIHS) and Capital Health Endowed Research Funds.

Compliance with ethical standards

Conflicts of interest Dr. Wagg has received funding from Astellas Pharma, Pfizer Corp., and Essity Health & Hygiene AB for research, speaker honoraria and consultancy—none directly related to this paper.

Dr. Rajabali, Dr. Tannenbaum and Miss Shaw declare no financial conflicts of interest.

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