Urinary incontinence in older people in the community: a neglected problem?

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SUMMARY

Background: *The prevalence and impact of urinary incontinence has been investigated much less in older men than in older women. It is suggested that those who perceive that their daily lives are affected should have priority for services. However, many people do not seek medical help, even though they may be severely affected.*

Aim: *To investigate unmet need in relation to the prevalence and impact on everyday life of urinary incontinence in men and women over the age of 65 years.*

Design of study: *Cross-sectional survey to measure prevalence of urinary incontinence, the impact on people's lives, use of protection, and health services.*

Setting: *Stratified random sample of 2000 community-living elderly (equal numbers of men and women, aged 65 to 74 years and over 75 years) in 11 general practices in a British city.*

Results: *The response rate was 79%. The overall prevalence of incontinence in the previous month was 31% for women and 23% for men. Women generally had more severe frequency of incontinence and a greater degree of wetness than men. Protection use was greater in women than in men. Only 40% of men and 45% of women with incontinence had accessed health services. Significant predictors of the use of health services were: incontinence reported as a problem, increased frequency of incontinence, and greater degree of wetness. About one-third of people who leaked with severe frequency or who reported that it was a problem had not accessed NHS services for incontinence.*

Conclusions: *Urinary incontinence is a common problem for older men and women living in the community and can have a deleterious effect on their lives. There is the opportunity to improve the lives of many older people with urinary incontinence, probably by a combination of increased public, patient, and professional awareness that should lead to earlier presentation and initiation of effective care.*

Keywords: *urinary incontinence; older people; prevalence; primary care.*

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Introduction

URINARY incontinence is an important and common problem in older people.[1,2] Accurate estimates of its prevalence depend on the particular age group as well as on sex.[3] In older women, estimates range between 17% and 42%.[1,4] The prevalence for older men in the community has been investigated less but is reported at about 20%.[3,5] Incontinence is a predictor of institutionalisation and can cause severe social and psychological problems.[6,7] The social consequences may arise from the restrictive strategies used to manage it; for example, avoiding social activities and public events because of embarrassment, with the impact generally independent of the severity of the incontinence.[7,8] In terms of selecting people for treatment, it is suggested that those who perceive that their daily lives are affected by urinary incontinence should have priority for services.[9,10] However, many people do not seek medical help for urinary incontinence,[11-13] even though they may be severely affected[4] and the incontinence can be cured or significantly improved in over 60% of cases with conservative management alone.[14,15] This may be because incontinence can mistakenly be seen as an inevitable, irreversible, and normal part of ageing.[4,16,17]

Very little research has focused on the impact of incontinence on men, although lower urinary tract symptoms have been reported to have an impact on men's everyday lives, particularly 'irritative' (storage) symptoms such as frequency, urgency, nocturia, and incontinence.[18] To our knowledge, no previous work has examined the relationship between use of health services in the United Kingdom (UK) for older people with urinary incontinence and its impact on their lives. The aim of this study was therefore to investigate unmet need relating to urinary incontinence in men and women over the age of 65 years living in the community in a British city. Of particular interest was the prevalence and impact of the incontinence on their lives, their strategies for dealing with it, and their use of health services, particularly in primary care.

Method

A postal questionnaire about incontinence (part of a larger study of determinants of social networks, social support, and use of home care services) was sent to a random sample of 2000 elderly people, stratified by age and sex (to yield equal numbers of men and women, between the ages of 65 and 74 years, and 75 years and over) registered with 11 general practices in a British city. Practices had a range of incontinence services available in both primary and secondary care, including a specialist community continence nurse. Several questions were asked about urinary incontinence (Box 1) and details of responses are shown in Table 2.

HOW THIS FITS IN

What do we know?
Urinary incontinence is a common problem in older people, but many do not use NHS services. Little is known about the relationship between the use of health services and the impact of urinary incontinence on older people's lives, particularly for men.

What does this paper add?
Urinary incontinence is a common problem for both men and women, that can affect their daily lives. It is likely that there is unmet need as a third of those who leaked with severe frequency, or felt that urinary incontinence was a problem, had not accessed NHS services. There is the opportunity to improve the lives of many older people with urinary incontinence.

- Have you leaked urine in the past month?
- How often do you leak urine?
- How much of a problem is this for you?
- How much leakage occurs?
- When does the leakage happen?
- Do you usually protect yourself against leaking?
- Overall, how much does leaking urine interfere with your life?
- What have you done about the leakage?

Box 1. Questions asked about urinary incontinence in the postal questionnaire.

*Table 1. Urinary incontinence in the past month in the whole sample (*n *= 1540).*

Urinary incontinence by age[a] (years)	Number (%) in each age group	
	Male	Female
65–69 (167 male, 150 female)	20 (12)	44 (29)
70–74 (194 male, 206 female)	41 (21)	46 (22)
75–79 (198 male, 200 female)	44 (22)	61 (31)
≥80 (222 male, 184 female)	76 (34)	78 (42)
All ages (781 male, 740 female)	183 (23)	233 (31)

[a]Numbers may differ slightly for each item owing to missing values.

There are considerable problems with the definition of incontinence and its measurement. The International Continence Society's definition suggests that it is 'the involuntary loss of urine which is a social or hygienic problem.'[19] In this study, a subject was defined as having urinary incontinence if they reported that, in the last month, they leaked urine or indicated how much leakage occurred, that they protected themselves against leakage, or that leakage happened at a defined time; for example, when they coughed. In terms of frequency, urinary incontinence once per week or less was defined as 'mild'; between twice a week and once per day 'moderate'; and several times a day or more as 'severe'.

Data were analysed using STATA 6.0. Frequencies and proportions are presented. The severity and impact of incontinence on subjects' lives were explored using χ^2 tests and likelihood ratio tests for heterogeneity or trend as appropriate.

Results

One thousand five hundred and forty people (79%) completed and returned the questionnaire. Of the original 2000 identified, 22 had died and 25 had moved out of the area and were removed from the denominator. There was no significant difference in response rates across practices. Data were available on the age and sex of non-responders, who were more likely to be over 75 years and, within this older age group, more likely to be female. The overall prevalence of urinary incontinence, as defined above, was 27%: 23% for men and 31% for women (Table 1). The prevalence was greater in women than men at all ages and increased to 42% in women and 34% in men aged 80 years or over.

In those who reported urinary incontinence, 61% of women and 54% of men reported the frequency as moderate or severe (Table 2). Forty-six per cent of women and 49% of men with incontinence reported that it was a problem for them. The consequences of incontinence are also shown. In general, women reported a greater degree of wetness than men, with over one-quarter reporting they had wet underwear, wet outer clothing or had urine running onto the floor, compared with 16% of men. The perceived causes or circumstances under which leakage occurred are presented (Table 2). Urge incontinence ('before I can get to the toilet') was common in both men and women (43% men, 53% women), but more so in women, $P = 0.03$. Post-micturition dribbling ('when finished and dressed') was reported by 28% of men but only 6% of women, $P<0.001$. Stress incontinence was much more common in women than men, following coughing and sneezing, (48% women, 8% men, $P<0.001$) and after physical exercise, although the sex difference with physical exercise was not statistically significant. Unpredictable leaking (without obvious reason) was reported by 20% of men and 16% of women.

The range of protection used is presented in Table 2. Protection use was greater in women than men, at all level of severity and frequency of incontinence. Incontinence was more likely to interfere with life as the frequency increased ($P<0.001$ for both men and women, Table 3). Similarly, as the frequency of incontinence increased it was more likely to be a problem ($P<0.001$ for both men and women, Table 3).

Methods of dealing with leakage of urine are presented in Table 2. About half of those with incontinence did not do anything about their leakage, with only 40% of men and 45% of women using health services. Further analysis (not shown) found that 34% of those who leaked with severe frequency did not access health services and 37% who reported it was a problem also did not access health services. Eighteen per cent of men and 20% of women used non-NHS sources of help (sent away for information, discussed with friends or did something else). Significant predictors of the use of health services were: incontinence reported to be a problem, increasing frequency of incontinence, and more severe wetness (Table 4). Sex, age group, and social class did not affect the use of health services. The significant univariable association between use of NHS services and interference with life was attenuated with adjustment for urine frequency, wetness, and incontinence being a problem.

Table 2. The impact of urinary incontinence on people's lives (denominator[a] are the 416 people with urinary incontinence only).

	Number (%) in each category	
	Male	Female
Frequency of incontinence		
Mild[b]	81 (46)	82 (39)
Moderate[c]	66 (38)	72 (35)
Severe[d]	29 (16)	54 (26)
Whether leakage was a problem[e]		
Yes	89 (51)	118 (54)
No	87 (49)	99 (46)
Whether leakage interfered with their lives[f]		
Yes	93 (53)	126 (58)
No	81 (47)	90 (42)
Degree of wetness		
Underwear damp	136 (84)	150 (74)
Underwear wet	17 (11)	33 (16)
Wet outer clothes/on floor	8 (5)	21 (11)
Occasions when leakage occurs[g]		
Before getting to the toilet (urge)	79 (43)	125 (53)
Cough/sneeze (stress)	12 (8)	111 (48)
When asleep (nocturnal)	12 (7)	18 (8)
Physical exercise (stress)	14 (8)	30 (13)
When finished/dressed (post-micturition dribble)	51 (28)	14 (6)
Without obvious reason (unpredictable)	36 (20)	37 (16)
Other	10 (5)	5 (2)
Type of protection[g]		
None	58 (32)	27 (12)
Change clothes	93 (51)	84 (36)
Use paper	23 (13)	28 (12)
Mini-pads	1 (1)	51 (22)
Sanitary pads	2 (1)	23 (10)
Incontinence pads	10 (5)	33 (14)
Other methods	3 (2)	5 (2)
Action[g]		
Did nothing	90 (49)	110 (47)
Sent away for information	10 (5)	11 (5)
Discussed with GP	55 (30)	60 (26)
Discussed with nurse	16 (9)	30 (13)
Medication	20 (11)	11 (5)
Exercises	14 (8)	49 (21)
Hospital outpatient	16 (9)	18 (8)
Hospital inpatient	8 (4)	9 (4)
Did something else	5 (3)	1 (0)

[a]Numbers may differ slightly for each item owing to missing values. [b]Once per week or less. [c]Between twice a week and once per day. [d]Several times a day or more. [e]'Problem' was defined as those reporting a little, quite a lot or a serious problem with the leakage. [f]'Interference' was defined as those reporting that the leakage interfered with life a little, somewhat or a lot. [g]Columns do not add up to 100% as people could give more than one response.

Discussion

This study suggests that incontinence is a common affliction among older people and can have a deleterious impact on their everyday lives, with evidence also of considerable unmet need. The associations of urinary incontinence with sex and age, and the type of incontinence with sex, were generally as anticipated.[3,5,20] In terms of prevalence, the figures for those aged 65 to 69 years are similar to Bogren's sample of people aged 65 years in Sweden[20] and the overall prevalence in women, at 31%, was similar to that found elsewhere.[5,21] Little comparable data have been published about men, although the prevalence found here (23% overall and 34% in the over-80-year-olds) suggests that it is a serious public health problem for older men, with 54% of men with incontinence reporting leakage at least twice per week. Surprisingly, 20% of men and 16% of women reported unpredictable incontinence which may be particularly difficult to deal with. Women protected themselves against leakage more often than men at all levels of severity of incontinence, probably because of their greater knowledge of, and access to, devices. Mini-pads were the commonest device used by women.

The sample for this study was drawn from a slightly more affluent and predominately white population than the average for the UK, with its own range of services, which may hinder generalisability. The study was, however, based across 11 different practices and had a relatively high response rate. With older women having both the highest levels of incontinence and being more likely to be non-responders, it may be that the true prevalence among older people may be even greater than presented.

The definition of incontinence has been problematic for research in this area with various definitions and timescales employed. In this study, the question 'Have you leaked urine in the last month?' was sometimes left blank, with other questions about the frequency and severity of incontinence completed, suggesting that simple dichotomous questions about urinary incontinence are problematic. We did not validate the reporting of incontinence in relation to pad tests because this would have reduced response and also because definitions, such as that employed by the International Continence Society, rely on whether it is a 'social or hygiene problem' which can only be obtained by self-report. The fact that a similar prevalence of incontinence among women in this study has been found elsewhere[21] suggests that the questionnaire has validity and reliability. A particular strength of this study is that it comprises a large sample of older people living in the community, including men and the older elderly who have been under-researched in the past.[22]

Among these community-dwelling older people, fewer than one-half of those reporting incontinence had accessed health services for it, consistent with other work.[13,14] There may therefore be considerable unmet need among older people in relation to incontinence, particularly as it is well recognised that simple interventions can improve incontinence and thus the quality of life of elderly people.[23] Urinary incontinence is therefore similar to other conditions for which a clinical iceberg exists, with many people with symptoms not approaching professional care.[24] The processes that lead people to seek medical help are complex and depend on factors, such as their perceptions of ill health, attitudes towards illness, and availability of services.

In this study, access to health services did not vary by age, sex or social class but service use was more likely if the incontinence was perceived to be a problem, was more frequent or led to more wetness, supporting the contention that it is the perception of a problem that is a key factor determining access to services.[18] This supports the claim by

Table 3: To show whether urinary incontinence interfered with peoples' lives or was a problem because of its frequency.

	Mild incontinence *n* (%)	Moderate incontinence *n* (%)	Severe incontinence *n* (%)	*P*-value for trend
Leakage interfered with peoples' lives				
Men				
Yes	53 (70)	29 (45)	7 (24)	
No	23 (30)	36 (55)	22 (76)	<0.001
Women				
Yes	55 (73)	36 (50)	20 (39)	
No	20 (27)	36 (50)	31 (61)	<0.001
Leakage was regarded as a problem				
Men				
Yes	59 (73)	23 (36)	4 (14)	
No	22 (27)	41 (64)	24 (86)	<0.001
Women				
Yes	58 (73)	32 (45)	16 (31)	
No	21 (27)	39 (55)	36 (69)	<0.001

Table 4. Odds ratio (95% confidence interval) for use of NHS services for urinary incontinence by those with urinary incontinence.

Variable	*n*[a]	Univariable	Multivariable[c]
Frequency of leakage			
Mild	52/111	1.0	1.0
Moderate	65/73	1.9 (1.2–3.0)	1.1 (0.6–1.9)
Severe	55/28	4.2 (2.4–7.4)	2.1 (1.2–4.7)
P-value[b]		<0.001	0.02
Degree of wetness			
Underwear damp	118/168	1.0	1.0
Underwear wet	34/16	3.0 (1.6–5.7)	2.5 (1.2–5.2)
Wet outer clothes/onto floor	23/6	5.5 (2.2–13.8)	3.9 (1.3–12.3)
P-value		<0.001	0.005
Leakage is a problem			
No	54/153	1.0	1.0
Yes	117/69	4.8 (3.1–7.4)	2.6 (1.4–4.7)
P-value		<0.001	0.002
Leakage interferes with life			
No	70/149	1.0	1.0
Yes	108/63	3.6 (2.4–5.6)	1.0 (0.6–2.0)
P-value		<0.001	0.07

[a]Use/do not use NHS services. [b]*P*-value for linear trend. [c]Adjusted for the other three factors.

some authors that services should be targeted towards those who perceive themselves to be in greatest need.[9,10] However, about one-third of people in this study reporting troublesome incontinence (i.e. those who leaked with severe frequency or who reported that it was a problem for them) had not accessed NHS services. It could be argued that these individuals could benefit from simple interventions, such as pelvic floor exercises or bladder training provided by primary health care professionals, particularly nurses,[14,23] but currently they do not present for help. As the majority of older people are in regular contact with members of the primary health care team, a simple questionnaire, such as the one used in this study, could be administered at the over-75-year-old health check to allow the identification and management of people who are seriously troubled by incontinence.

It may also be necessary to change the attitudes of some health care professionals. There is conflicting evidence, for example, about how well incontinence is managed in primary care. Some report that people are well cared for in general practice.[10,14,15,25] However, it has also been suggested that, in older people, incontinence may be dismissed as not worthy of investigation or treatment[22,23] and that physicians are less likely to ask older people about it.[26]

Finally, there is a further issue concerning the public awareness of incontinence and its treatments. Incontinence remains something of a taboo subject and public awareness campaigns should be encouraged, so that those with incontinence can learn about the treatments that are available and feel able to present to primary care. There is considerable opportunity to improve the lives of many older people with urinary incontinence; however, this will require a combination of approaches. Particularly important will be an increase in public, patient, and professional awareness of incontinence which should, in turn, lead to earlier presentation and initiation of effective care.

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