Urinary incontinence in the community—analysis of a MORI poll

J C Brocklehurst

Abstract

***Objectives*—To investigate the prevalence of urinary incontinence among people living at home, their responses to it, and its emotional and social effects.**

***Design*—Random sample of 4007 adults interviewed in their own homes.**

***Setting*—Random sample of 178 constituency sampling points throughout Great Britain.**

***Subjects*—1883 men, 2124 women aged 30 and over.**

***Main outcome measures*—Responses to questionnaire.**

***Results*—6·6% (125) men and 14·0% (297) women had been incontinent of urine at some time—2·8% (52) men and 7·5% (159) women in the previous two months and 61% (124) of these for more than four years. 52% (108) had consulted their general practitioner at the onset of incontinence and a further 31% (65) later. Doctors commonly took a urine sample (163, 54%), referred the patient to a specialist (127, 42%), and prescribed tablets (109, 36%); only 22% (66) carried out an abdominal, rectal, or vaginal examination. Patients were not embarrassed in seeing their doctor and most thought they were treated sympathetically. 60% (265) of all those affected were concerned or worried about their incontinence, and in almost half incontinence limited their daily social activities.**

***Conclusion*—More people with incontinence seem to be consulting their doctors about it than has been found in previous studies, but the procedures carried out by general practitioners still seem to be suboptimal. Urinary incontinence has a profound effect on the day to day lives of most of those who suffer from it.**

Introduction

Despite great advances in differential diagnosis and management of urinary incontinence in the past 25 years the handicap that it imposes on the sufferer has not been explored to any extent, nor has the way in which help has been sought and the effectiveness of such help. More than one year's delay in reporting the symptom to the family doctor has been recorded in over half of cases, the main reasons for this being the hope that it will go away and embarrassment in talking to the doctor about it.[1] Even when incontinence has been reported to the general practitioner the use of available facilities (for example, continence advisers) is limited.[2]

To obtain a picture of the present prevalence of incontinence in the community, the handicap associated with it, and the current uptake of services, the British Association for Continence Care commissioned a poll from Market and Opinion Research International, which was carried out in 1991. Thirty two questions were asked. Seventeen of the most relevant are the subject of this analysis.

British Association for Continence Care, Prism International, Pinewood Studios, Iver Heath, Buckinghamshire SL0 0NH
J C Brocklehurst, *adviser*

BMJ 1993;306:832-4

Method

A random sample of 4007 adults (1883 men) aged 30 and over was interviewed in their own homes at geographically stratified sampling points throughout Great Britain. Three quarters of the interviewees were women—reflecting the known greater prevalence of the symptom among women. The data have been weighted back to reflect the profile of the population over 30 in Britain. The instrument used was derived from discussion with four groups of members of the general public (with and without incontinence) who explained their attitudes and the perceived effect on lifestyle. The questionnaire was administered by trained interviewers.

The symptom of incontinence was broached in the question "Have you ever suffered from any of these health problems?"—a list of 15 problems being shown on a card. Problems included backache, chest pain, constipation, depression (feeling "down" for long periods of time), and alcohol problems. The third item on the list was "bladder problems, e.g. leaking, wet pants, damp pants." A positive answer registered the person as incontinent.

Results

PREVALENCE

In all, 297 women (14·0%) and 125 men (6·6%) were, or had been, incontinent. Table I shows prevalence by age, sex, and recency of the symptom. The important figures for comparison with other surveys are 3·8% (72) men and 9·3% (197) women incontinent in the previous year and 2·8% (52) and 7·5% (159) respectively in the previous two months. The expected increase with age and greater prevalence in women was found.

Table II analyses 203 subjects who were incontinent in the previous two months by duration of symptom (45% (92) for between four and 15 years and 16% (32) for over 16 years). No important difference was found between the duration of symptoms in those incontinent in the previous two months and those incontinent in the previous year.

ACTION TAKEN

The action taken by sufferers on first realising that incontinence was a problem is shown in table III. Again there was no important difference between those incontinent for two months or one year. A total of 52% (108/209) consulted their general practitioner—significantly more men and rather more of the younger sufferers and those in full time work. Respondents were asked the further question, "What did you do when you had the problem for some time?" A further 31% (65) went to see their doctor—suggesting that over 80% had consulted their general practitioner at some time.

Fourteen per cent (29) did nothing about their incontinence when it first occurred—the main reason being that it was "not important enough." Only 13%

TABLE I—*Prevalence of incontinence. Figures are numbers (percentages)*

Age	n	Ever	In previous year	In previous 2 months	In previous week
Men:					
30-49	867	18 (2·0)	13 (1·5)	7 (0·8)	7 (0·8)
50-59	315	17 (5·4)	8 (2·5)	8 (2·5)	8 (2·5)
⩾60	701	90 (13·3)	51 (7·3)	37 (5·3)	26 (3·7)
Total	1883	125 (6·6)	72 (3·8)	52 (2·8)	41 (2·2)
Women:					
30-49	921	100 (10·9)	66 (7·2)	50 (5·4)	33 (3·6)
50-59	363	56 (15·4)	33 (9·1)	23 (6·3)	19 (5·2)
⩾60	840	141 (16·8)	98 (11·7)	86 (10·2)	70 (8·3)
Total	2124	297 (14·0)	197 (9·3)	159 (7·5)	122 (5·7)

TABLE II—*Onset of incontinence in subjects who had been incontinent in previous two months.* Figures are numbers (percentages)*

	Age		Sex		
First suffered†:	30-59 (n=84)	⩾60 (n=119)	Male (n=50)	Female (n=153)	Total (n=203)
In previous 6 months	6 (10·2)	9 (5·2)	6 (12·0)	9 (5·9)	15 (7·4)
7 Months-3 years ago	28 (31·8)	36 (31·3)	16 (32·0)	48 (31·4)	64 (31·5)
4-15 Years ago	35 (40·9)	57 (48·7)	28 (56·0)	64 (41·8)	92 (45·3)
⩾16 Years ago	15 (17·1)	17 (14·8)		32 (21·0)	32 (15·8)

*Figures for those incontinent in previous year show no difference.
†6 "Don't know"s not included.

(26) spoke to their spouse about it, and fewer than 10% mentioned it to another family member or friend. Six per cent (11) spoke to a nurse and 1% (two) referred themselves to a special clinic.

Action taken by general practitioners is shown in table IV. It consisted principally of taking a urine sample (54%, 163), referral to a specialist (42%, 127), and the prescribing of medication (36%, 109). More men than women were referred to a specialist. Less than a quarter were given an abdominal, rectal, or vaginal examination—more of these being younger women. Doctors also advised their patients to drink less tea and coffee, go on a diet, practise pelvic floor exercises (in each case 9%, 26). Twelve patients (4%) were told to read a book or leaflet about incontinence. There were definite regional differences in the action taken by general practitioners (data not shown). For instance, twice as many subjects in Wales were referred to a specialist or given an abdominal examination than in Humberside and Yorkshire, and half as many were prescribed tablets. Of 123 subjects receiving medication, 40 (36%) thought it was very effective and 36% fairly effective.

TABLE III—*Actions on first realising problem in subjects incontinent in previous two months. Figures are numbers (percentages)*

	Age				
	30-59 (n=87)	⩾60 (n=121)	Men (n=57)	Women (n=157)	Total (n=209)
Went to see doctor	48 (55)	60 (49)	35 (68)	73 (47)	108 (52)
Wore pads	20 (22)	17 (14)	2 (4)	35 (22)	37 (18)
Did nothing	11 (13)	18 (14)	2 (4)	27 (17)	29 (14)
Carried spare underwear	16 (19)	10 (8)		26 (17)	26 (13)
Spoke to spouse	12 (14)	14 (12)	6 (11)	20 (12)	26 (13)
Practised pelvic floor exercises	17 (20)	4 (3)		21 (13)	21 (10)

TABLE IV—*What general practitioner did when consulted about incontinence. Figures are numbers (percentages) of all sufferers who saw a doctor*

	Age				
	30-59 (n=128)	⩾60 (n=172)	Men (n=108)	Women (n=192)	Total (n=300)
Took urine sample	74 (58)	89 (52)	61 (56)	102 (53)	163 (54)
Referred to specialist	56 (44)	71 (41)	57 (53)	70 (36)	127 (42)
Abdominal examination	37 (29)	30 (17)	24 (22)	43 (23)	67 (22)
Rectal or vaginal examination	34 (27)	32 (19)	18 (17)	48 (25)	66 (22)
Prescribed medication	48 (38)	61 (35)	35 (32)	74 (39)	109 (36)

Of those consulting their doctor only 38 (13%) felt embarrassed in talking to him or her of their symptoms (no difference between men and women). Ninety three per cent (279) found their doctor understanding. Sixty (20%) (17 (15%) men, 43 (23%) women) consulted women doctors.

Those who were not incontinent (3584) were asked what they thought they would do and how they would feel if they were incontinent. Ninety five per cent (3391) would go to their doctor and only 15% (492) said they thought they would feel embarrassed by so doing. Ninety one per cent (3096) would expect their doctor to be understanding.

Of those, continent and incontinent, who felt they would be embarrassed the reasons were "too shy" (63, 33%), "too personal—a topic not spoken of" (54, 28%), "wouldn't like to admit wetting myself" (25, 13%). There was little age or sex difference for these answers except "admit wetting myself"—21% (13) of those aged 30-39 compared with 6% (two) of over 70s.

ATTITUDES AND LIFESTYLE

Thirty four per cent (144) of all sufferers were concerned and 29% (121) were worried when incontinence first started (more men than women); 30% (125) felt embarrassed, 10% (43) smelly, and 8% (33) ashamed—in these cases more women than men. Nine per cent (40; equal proportions of men and women) felt angry. Regarding effect on lifestyle, 154 (36%) sufferers felt there had been a great deal or fair amount of effect (55 (45%) men and 99 (34%) women). Only 97 (23%) felt no effect on their lifestyle (equal proportions of men and women). The figures are different to the perception of those not incontinent who were asked the same question: 71% (2564) thought that the Gondition would have a great deal or fair amount of effect on their lifestyle and only 20% (692) not much or none at all.

More details of the effect on lifestyle of sufferers are shown in table V. Only 30-45% (63-94) feel very confident in the major activities of social life. All activities were more curtailed in older and male sufferers than in those who were younger and female. Again, non-sufferers would have anticipated even greater restrictions resulting from incontinence. The general restrictions imposed by incontinence (among all those incontinent at any time) were drinking less when going out (35%, 146), making a conscious effort to find out where public toilets are (33%, 141), going out less (15%, 65), and restricting activities such as lifting (10%, 43).

PERCEPTIONS OF CAUSES OF INCONTINENCE

Both sufferers and non-sufferers were asked about their perception as to the cause of incontinence (table VI). In both groups one quarter perceived it to be caused by a medical condition, particularly more older male sufferers. Twice the proportion of incontinent women aged 60 or over attributed their incontinence to childbirth than women non-sufferers in that age group (16% (22) *v* 7% (52)) thought likely. Fifteen per cent (18) of men thought their incontinence was due to age or old age, compared with 5% (15) of women sufferers. A very small proportion of sufferers thought that it was due to previous surgery (28, 7%) or to muscle weakness, anxiety, infection, overweight (14 (3%) or less in each case). More non-sufferers attributed incontinence to anxiety, muscle weakness, or infection (6%, 201-5 in each case), whereas 20% to 30% had no opinion as to its cause—more non-sufferers, more men, and more subjects aged over 60.

TABLE V—*Number (percentage) who feel very confident in various activities*

	Incontinent in previous 2 months*					
	Age					
	30-59 (n=87)	≥60 (n=121)	Men (n=51)	Women (n=157)	Total (n=208)	Not incontinent† (n=3584)
Using public transport	39 (45)	24 (20)	9 (18)	54 (34)	63 (30)	213 (6)
Visiting friends	51 (58)	43 (35)	20 (39)	74 (47)	94 (45)	763 (21)
Going out to work	43 (49)	22 (18)	13 (25)	52 (33)	65 (31)	520 (14)
Going to supermarket	71 (59)	43 (30)	28 (39)	86 (44)	114 (43)	400 (11)

*Figures for those incontinent in past 12 months show no difference.
†Asked "If you were incontinent how confident would you feel about . . . ?"

TABLE VI—*Perception of cause of incontinence. Figures are numbers (percentages)*

	Age		Sex		
	30-59	≥60	Male	Female	Total
Not incontinent:	n=2275	n=1309	n=1759	n=1825	n=3584
Medical condition	620 (27)	271 (21)	429 (24)	465 (25)	891 (25)
Age or old age	337 (15)	180 (14)	226 (13)	291 (16)	557 (14)
Childbirth (women only)	318 (28)	52 (7)		370 (20)	
Don't know	605 (27)	484 (37)	601 (34)	486 (27)	1088 (30)
Incontinent:	n=192	n=231	n=126	n=297	n=423
Medical condition	43 (18)	68 (28)	48 (38)	64 (22)	112 (26)
Age or old age	4 (2)	29 (12)	18 (15)	15 (5)	33 (8)
Childbirth (women only)	55 (35)	22 (16)		78 (26)	
Don't know	29 (15)	55 (24)	31 (25)	53 (18)	84 (20)

Discussion

PREVALENCE

Of the many surveys of prevalence of urinary incontinence few report only on people living in their own homes. These in turn are complicated by differing definitions of incontinence, and in particular the following variables: when it last occurred; how frequently; and whether or not it poses a social or hygienic problem (no study addressed this question directly). The method of information gathering (by questionnaire or face to face interview) may also affect the results.

In women younger than 65 years reports have fallen into two main groups—those finding about 50% prevalence[3-6] and those reporting very much lower figures.[7,8] Jolleys reported 41% (343) of women of all ages having inappropriate leakage of urine, but in 232 (70%) of these it amounted to only dampening of underwear.[6] In those studies with lower prevalences it must be presumed that dampness was not regarded as incontinence (although the words "damp pants" were included in the questions asked in the MORI poll).

In older age (60-75 or more) there is reasonable concordance between the present study and those of Thomas *et al*[8] and McGrother *et al*,[9] but differences with others[5,7,10] are considerable. The prevalence of incontinence according to the International Continence Society's definition—a condition in which involuntary loss of urine is a social or hygienic problem and is objectively demonstrable[11]—is unknown.

EFFECTS

As 61% (124) of subjects first suffered incontinence four or more years earlier, there is inevitably a possibility of recall bias. Just over half reported visiting their general practitioners at the onset and a further 31% at some time later—actions which they might be expected to remember. Clearly they did take incontinence seriously. The great majority were not embarrassed in approaching their doctor and were happy with his or her attitude. Norton *et al* found that 25%-35% of women had delayed for five years or more before seeking medical advice.[1] Half of them felt too embarrassed to talk to their general practitioner and a similar proportion hoped that the symptom would go away. Nineteen per cent of Norton *et al*'s subjects thought the symptom was normal.

The action taken by general practitioners was generally limited to taking a urine sample, referring to a specialist, or prescribing tablets. In a minority of cases an abdominal, rectal, or vaginal examination was performed. These results suggest that medication is often prescribed without clinical examination and probably without a diagnosis being made. The fact that three quarters of those prescribed medication thought it to have been very or fairly effective may be thought to vindicate this as a first line approach, but side effects from anticholinergic drugs are common, and important diagnoses (for example, a neurological condition) may be delayed. Fewer than 5% of those who consulted a doctor were referred to a nurse or incontinence clinic, a figure which accords with that of Briggs and Williams, who found 42 of 101 general practitioners surveyed never used the service of a continence adviser for older patients although the service was available to them.[2]

There have been few studies of the social and emotional effects of incontinence.[12] In the present study 60% of incontinent subjects were concerned or worried about their incontinence and 34%-45% felt it affected their lifestyle considerably. Non-sufferers regard incontinence as more handicapping than do sufferers, which suggests that these figures are no exaggeration. Incontinence was seen as a moderate or severe social handicap by 37% of subjects in the present sample (the same as found by Wyman *et al*[13]). Embarrassment (13%) and concern about smell (10%) were also similar to previous findings.[12] Norton *et al* reported that half of their sample of incontinent women felt odd and different from other people and 40% less attractive because of their bladder problems.[1]

No figures are available to compare to those in this study as to people's perception of the causes of urinary incontinence. It is notable that a quarter of both incontinent and non-incontinent subjects think it is due to a medical condition, a quarter of incontinent women that it is due to childbirth, and a quarter don't know.

This survey shows that the emotional, social, and hygienic effects of urinary incontinence remain considerable. Medical advice is generally sought at some stage, but the action taken by general practitioners still seems to be suboptimal and shows considerable geographical variation. Continuing efforts in public and medical education about incontinence are still required.

The British Association for Continence Care is supported by Kabi Pharmacia and Smith and Nephew.

1 Norton PA, MacDonald LD, Sedgwick PM, Stanton SL. Distress and delay associated with urinary incontinence, frequency and urgency in women. *BMJ* 1988;**297**:1187-9.
2 Briggs M, Williams ES. Urinary incontinence. *BMJ* 1992;**304**:255.
3 Nemir A, Middleton RP. Stress incontinence in young nulliparous women. *Am J Obstet* 1954;**68**:1166-8.
4 Wollin LH. Stress incontinence in young, healthy nulliparous female subjects. *J Urol* 1969;**101**:545-9.
5 Brocklehurst JC, Fry J, Griffiths LL, Kalton G. Urinary infection and symptoms of dysuria in women aged 45 to 64 years; their relevance to similar findings in the elderly. *Age Ageing* 1972;**1**:41-5.
6 Jolleys JV. Reported prevalence of urinary incontinence in women in a general practice. *BMJ* 1988;**296**:1300-2.
7 O'Brien J, Austin M, Sethi P, O'Boyle P. Urinary incontinence; prevalence, need for treatment and effectiveness of intervention by nurse. *BMJ* 1991;**303**:1308-12.
8 Thomas TM, Plymat KR, Blannin J, Meade TW. Prevalence of urinary incontinence. *BMJ* 1980;**281**:1243-5.
9 McGrother CW, Castleden CM, Duffin H, Clarke M. A profile of disordered micturition in the elderly at home. *Age Ageing* 1987;**16**:105-10.
10 Vetter NJ, Jones DE, Victor CR. Urinary incontinence in the elderly at home. *Lancet* 1981;ii:1275-7.
11 Bates P, Bradley WE, Glen E. Standardization of terminology of lower urinary tract function. *J Urol* 1979;**121**:551-4.
12 Wells T. Social and psychological implications of incontinence. In: Brocklehurst JC, ed. *Urology in the elderly*. Edinburgh: Churchill Livingstone, 1984:119-24.
13 Wyman JF, Harkins SW, Sung CC, Taylor JR, Fanti JA. Psychosocial impact of urinary incontinence in women. *Obstet Gynecol* 1987;70:378-81.