Sex differences in the use of absorbent (incontinence) pads in independently living elderly people: do men receive less care?

T. A. M. Teunissen, A. L. M. Lagro-Janssen

Introduction

Urinary incontinence (UI) is a very common health problem, especially in the elderly people. UI affects 10–20% of the women younger than 65 years of age. In elderly women, the prevalence increases to 30–40%, and in homebound or institutionalised women more than 50% are incontinent. In men younger than age 60, UI is rare. In men aged 60 and above, 10% suffers from incontinence. Not only the prevalence of UI differs between men and women, but also the type of incontinence and the impact of UI on daily life are different. In men, urge incontinence is the most prevalent type, while in younger women stress incontinence and in older women mixed incontinence are the most common (1).

The costs of the usage of incontinence pads increase enormously in recent last years. In the Netherlands, annually €160 million is spending on incontinence pads (2).

There is little research concerning impact of UI in men. Our previous study revealed that men suffered more social and emotional impact of incontinence despite the incontinence in men is less severe (3).

Use of incontinence pads improves the quality of life. In a study of Getliffe (4), all women with UI spoke extensively of the psychological impact of their continence problem and reliance on absorbent pads on their everyday lives. The effectiveness and discreteness of the pad were critical issues, which affected how they felt about themselves and how they might be seen by others.

There are some previous studies about the performance of absorbent products (5–9). Studies about the use of absorbent or incontinence pads in a general population are scarce, especially for men. Knowledge about patient’s views, about the use and perception of incontinence pads is important because satisfaction about the pads can reduce the impact of UI on daily life.

The aim of the study was to examine the use and satisfaction of absorbent (incontinence) pads in independently living men and women aged 60 and above with UI.

Methods

This study is part of a longer study on UI we conducted in the eastern part of the Netherlands (1).
The subjects in this study were recruited from the practice population of the nine practices of the Nijmegen Monitoring Project, the academic registration network of the Department of General Practice of University Medical Centre Nijmegen, the Netherlands (10). These nine practices with 28 general practitioners (GPs) are fully computerised and provide medical care to a total of 46,500 patients. According to the structure of the Dutch healthcare system, patients can only access healthcare through the GP practice they are listed. Consequently, the GP has the full overview of medical care provided, in particular relevant for this study: the professional support for incontinence.

All patients were considered for this study who had reported presence of UI in a survey of the entire practice population aged 60 years and older (Figure 1). With a response rate of 88%, this survey had yielded incontinence in 22%, and 55% of them had indicated that they were prepared to participate in a follow-up study.

Urinary incontinence has been defined according to the Dutch guidelines for general practitioners: involuntary loss of urine at least twice a month (11). Postmicturition dribbling in men was not considered a symptom of incontinence. The study focused on uncomplicated UI in community dwelling elderly people. Patients with a neurological or psychiatric disorder, patients who had previously undergone unsuccessful surgery for UI and patients living in homes for elderly people were therefore excluded (see flow chart, Figure 1). During the interviews, the following data were collected:

Quantitative data on:
- Background characteristics (age, gender, civil status, level of education).
- The type of UI was determined on the basis of the following questions (12). Does loss of urine occur at moments of increased pressure, for example, when sneezing, jumping or coughing? Do you experience such strong urge that you fail to reach the toilet in time? According to this questions, urge incontinence was defined as: involuntary loss of urine during strong urge. Stress incontinence was defined as: involuntary loss of urine during increased abdominal pressure.
- The severity of UI was measured with the PRAFAB score (Protection, Amount, Frequency, Adjustment, Body image) (13). It involves questions on the

---

**Figure 1** Flow chart of the study population
involuntary loss of urine frequency, the amount of urine that is lost each time, the use of incontinence material, the limitation of activities of daily living and the effects on self-image. According to the PRAFAB guidelines, the following categories were distinguished: mild (1–7 points), mild-to-moderate (8–10 points), moderate (10–13 points) and severe (14–20 points).

To determine the use and satisfaction of absorbent (incontinence pads), we asked the following questions: Do you use absorbent (incontinence) pads? If the answer was positive, do you use it at day and/or night time? What kind of pads you use? Are you satisfied about this product? If their answer was negative, the reasons why were discussed shortly and recorded on tape.

**Statistical analysis**

Our data were analysed with the help of spss Statistics 14.0 (SPSS Inc., Chicago, IL, USA). Statistical differences between men and women in the use of pads, type of pad and satisfaction were analysed by the χ² test. We used p < 0.05 to indicate statistical significance.

As the type and severity of incontinence differed in men compared with women, we used a regression analysis to correct the sex differences for both factors.

**Results**

In total 56 men and 314 women were interviewed. Men differed from women in marital status, education, type of incontinence and the severity of incontinence (Table 1). Men had higher education. In men, urge incontinence was the most prevalent type of UI compared with mixed incontinence in women. Finally, in men UI was less severe compared with women.

Fifteen per cent of the men (n = 9) and 87% of the women (n = 274) with UI used absorbent or incontinence pads (Table 2). None of the men used a clamp for urethral constriction. Of the women who used pads, eight out of 10 women used them at daytime and half of them only or also at nighttime. In men, half of them used them at daytime and half of them also or only at nighttime.

All the men, who used pads, used absorbent pads constructed for women but also used other kind of pads such as self constructed pad, like cleanable self made pads. These pads are mostly made from old towels. Five of them also used pads specifically made for UI. In women nearly all, nine out of 10, used different kind of absorbent pads and only half of them used specific incontinence pads.

| Table 1 Characteristics of the study population (n = 370) |
|-----------------|----------------|-------------|-------------|
|                  | Men (%)        | Women (%)   | p-value     |
| Mean age ± SD (years) | 71.0 ± 7.6  | 71.1 ± 6.7  | 0.84        |
| Age groups       |                |             |             |
| 61–70 year       | 29 (52)        | 139 (44)    | 0.24        |
| 71–80 year       | 18 (32)        | 138 (44)    |             |
| 80 year and older| 9 (16)         | 37 (12)     |             |
| Marital status   |                |             |             |
| Married, living together | 47 (84)  | 192 (61)    | 0.01*       |
| Single           | 2 (3)          | 10 (3)      |             |
| Widower/widow    | 6 (11)         | 107 (34)    |             |
| Divorced         | 1 (2)          | 5 (2)       |             |
| Education        |                |             |             |
| Low†             | 26 (47)        | 206 (66)    | 0.01*       |
| Middle‡          | 18 (32)        | 75 (24)     |             |
| High§            | 12 (21)        | 33 (10)     |             |
| Duration of symptoms |            |             |             |
| < 6 months       | 0 (0)          | 0 (0)       | 0.38        |
| > 6 months to < 2 years | 8 (14) | 33 (10)     |             |
| 2–5 years        | 23 (41)        | 110 (35)    |             |
| > 5 years        | 25 (45)        | 171 (55)    |             |
| Type of incontinence |           |             |             |
| Stress           | 3 (5)          | 62 (20)     | < 0.001*    |
| Urge             | 38 (68)        | 62 (20)     |             |
| Mixed            | 7 (13)         | 179 (57)    |             |
| Others           | 8 (14)         | 9 (3)       |             |
| Severity of incontinence |      |             |             |
| Mild             | 10 (18)        | 14 (4)      | < 0.001*    |
| Moderate         | 45 (80)        | 248 (79)    |             |
| Severe           | 1 (2)          | 52 (17)     |             |

*< 0.05. †No/primary/junior secondary vocational education. ‡Junior general secondary/senior secondary vocational education. §Higher general secondary/higher professional/university education.

Two-third of the women were satisfied with the pads and about half of the men. The reasons why 88 women were not satisfied were leakage of the pads (n = 42), irritation (n = 26) and discomfort (n = 12). Half of the men were not satisfied about the pads because of discomfort (n = 2), leakage (n = 1) and irritation (n = 1).

As men differed from women in severity and type of incontinence, we performed a regression analysis to correct the sex differences in the use of pads for these factors. Also after correction for type and severity, the sex differences for the use of incontinence or absorbent pads, the use at daytime and the type of pads still existed. The same regression
analyses revealed that the use of incontinence or absorbent pads, the use at daytime and the type of pads were correlated to the severity of incontinence, in both men and women.

Discussion

One of the most important findings of this study is that almost all women with UI use absorbent or incontinence pads compared with a minority of the men. Also after correction for severity and type significant less men use absorbent or incontinence pads. Almost all women use pads at daytime but only a fifty per cent of the men.

Studies elsewhere found percentages of pad use in elderly women varying between 55 and 88% (14–17). One possible explanation for our higher percentage is that in our population the severity of UI was high. The higher the severity of UI, the higher the use of pads, in men as well as in women. If we compare the use of absorbent pads in different countries, we have to consider that in some countries absorbent products are for free. It is conceivable that the use of pads will increase if they are for free. In the Netherlands, specific incontinence pads are for free if prescribed by a doctor. Patients have to buy menstrual pads and press on party liners by themselves.

Striking finding was that most men construct their pads as self made products. Maybe men are not familiar with pads and are not aware of the existence of such product especially made for the anatomy of them. Men seem unaware of the availability of specific pads for men. Moreover, we think that men feel ashamed to buy pads or going to a doctor to ask for a prescription for pads. Another explanation is that they were less satisfied than women because of discomfort of the pads. Lastly, women are accommodated to UI by using pads because of the previous

| Table 2 Use of incontinence or absorbent pads in men and women |
|---------------------------------------------------------------|
| **Men (%)** | **Women (%)** | **p-value** | **Gender difference in regression analyse** |
| n = 56 | n = 314 |
| Use of pads | | | |
| Never | 47 (85) | 40 (13) | < 0.001 | < 0.001 |
| Sometimes | 3 (5) | 56 (17) |
| Mostly/always | 6 (10) | 218 (70) |
| If you use pads, do you so at daytime? | | | |
| Yes | 5 (56) | 225 (82) | < 0.001 | < 0.001 |
| No | 4 (44) | 49 (18) |
| If yes, what do you use? (more answers possible) | | | |
| Press on party liner | 2 (29) | 109 (48) | < 0.001 | < 0.001 |
| Menstrual pads | 0 | 50 (22) |
| Incontinence pads | 3 (43) | 110 (48) |
| Others | 4 (57) | 7 (3) |
| If you use pads, do you so at nighttimes? | | | |
| Yes | 4 (44) | 136 (50) | ns | ns |
| No | 5 (56) | 138 (50) |
| If yes, what do you use? (more answers possible) | | | |
| Press on party liner | 0 (0) | 43 (32) | ns | ns |
| Menstrual pads | 1 (25) | 23 (17) |
| Incontinence pads | 2 (50) | 69 (51) |
| Others | 3 (75) | 6 (4) |
| Are you satisfied about the pads? | | | |
| Always | 5 (55) | 186 (67) | ns | ns |
| Mostly | 1 (10) | 54 (20) |
| Sometimes | 3 (35) | 31 (12) |
| Mostly not | 0 | 3 (1) |
| I’m not satisfied because: | | | |
| It leaks | 1 | 42 | ns | ns |
| Irritate | 1 | 26 |
| Discomfort | 2 | 12 |
| Others | 0 | 8 |

*p2 test.
experience in managing menstrual bleeding and men do not have this experience.

The fact that men are not familiar with using pads and if they use pads they are less satisfied can explain the sex differences in the impact of UI, as found in the previous studies (3). After all, satisfaction about the pads can reduce the impact of UI on daily life (4,12).

Previous studies came to the conclusion that satisfaction about pads was associated with factors as functional status, the presence of coexisting faecal incontinence and the age of the respondents (5,6,17).

Other previous studies explored sex differences in satisfaction about absorbent products in men and women. They concluded that men prefer different designs of the products compared with women. We did not find any other study which compared the satisfaction of the use of pads, in general, in men and women and none about the use of pads in elderly people with UI in a general population (7–9).

Limitation of the study
A limitation of this study is that the number of male patients included in the study was quite low. Our study focused on uncomplicated incontinence. One of the reasons for the low number of male patients was that many had to be excluded because of complicated neurological diseases. As there was low number of male patients, we have to be careful to interpret the results.

Conclusion
Only one out of nine men with UI uses incontinence/absorbent pads in contrast with four out of five women. Women mostly use pads at daytime, men equal in daytime and nighttime. All men and nine out of 10 women, who use pads, wear menstrual pads, press on party liners and/or other kind of towels like cleanable self made towels. Half of the men and women use also pads specifically made for incontinence. Men are less satisfied about the pads compared with women, especially because of discomfort.

For daily practice, this means we have to inform male patients about UI pads specially constructed for men. Furthermore, we have to improve the quality of these products. Women using menstrual pads or press on party liners and who are not satisfied should receive a prescription of incontinence pads.

But, above all we have to focus on a proper treatment for UI in both men and women by training the bladder and/or the pelvic floor muscles.

Findings and Acknowledgements
None.

Author’s contribution
T.A.M. Teunissen: design, data analyse, drafting article. A.L.M. Lagro-Janssen: design, critical revision.

References
1 Teunissen TAM, van Weel C, Lagro-Janssen ALM. Prevalence of urinary-, faecal and double incontinence in the elderly living at home. Int Urogynecol J 2004; 15: 10.
2 The Drug Information System of the Health Care Insurance Board. Total cost 2002-2006. In 2007 http://www.gipdatabank.nl (accessed 2007).
3 Teunissen D, van den Bosch W, van Weel C, Lagro-Janssen A. “It can always happen”: the impact of urinary incontinence on elderly men en women. Scand J Prim Health Care 2006; 24: 166–73.
4 Getligge K, Fader M, Cottenden A, Jamieson K, Green N. Absorbent products for incontinence: ‘treatment effect’ and impact on quality of life. J Clin Nurs 2007; 16: 1936–45.
5 Brazzelli M, Shirran E, Vale L. Absorbent pads in contrast with four out of five women use also pads specifically made for inconti- nence. Men are less satisfied about the pads compared with women, especially because of discomfort.

For daily practice, this means we have to inform male patients about UI pads specially constructed for men. Furthermore, we have to improve the quality of these products. Women using menstrual pads or press on party liners and who are not satisfied should receive a prescription of incontinence pads.

But, above all we have to focus on a proper treatment for UI in both men and women by training the bladder and/or the pelvic floor muscles.