

## ABSORBENT PRODUCT USE AND INCONTINENCE ASSOCIATED DERMATITIS IN COMMUNITY-LIVING PERSONS WITH FECAL INCONTINENCE

### The Aims of this Study were to:

- 1) describe the use of absorbent products by community-living persons for managing fecal incontinence,
- 2) examine whether there are differences in absorbent product use by sex, age, presence of urinary incontinence, or fecal incontinence severity,
  - 2a) describe features of absorbent products that are favored by users and recommendations for improvement for fecal incontinence management
  - 2b) examine whether there are differences in the evaluation of features of absorbent products between males and females and older and younger persons with FI,
- 3) describe reports of incontinence-associated perineal skin damage in community-living persons with fecal incontinence,
  - 3a) determine whether wearing an absorbent product is reported to worsen or improve incontinence-associated perineal skin damage,
- 4) compare fecal incontinence related quality of life between those who do and do not have incontinence-associated skin damage or use absorbent products

### Study Design, Materials and Methods

This descriptive comparative study was nested in a randomized clinical trial of the impact of three different levels of fermentation of dietary fiber provided in a daily supplement and a placebo on fecal incontinence (FI) and fecal incontinence related quality of life. At the start of the study, 188 community-living persons with FI, defined as involuntary leakage of feces from the rectum, completed 1) a survey about their usual use and evaluation of absorbent products and perineal skin problems due to incontinence and 2) the Fecal Incontinence Quality of Life tool (FIQL). The FIQL has been shown to have good validity and reliability.<sup>1</sup> The absorbent product use survey included generic descriptions and diagrams of the various types of products available to community-living persons for purchase. Questions on the survey evaluating absorbent product features were guided by features reported in the literature. Open-ended questions provided opportunity for participants to comment on what they liked about the products they used and improvements they would recommend. Because we have recently shown that reports of FI severity using recall tended to under-report FI compared to data from a daily diary,<sup>2</sup> FI severity was determined using stool diary data completed over a 14-day baseline period. Ninety-five subjects prospectively monitored and reported the condition of their perineal skin daily for 52 days during the study.

### Results

Participants were 77% female, age = 58 (24-84) years (median (range)). Twenty-eight percent had urinary (UI) as well as FI, and 14% reported leaking urine at the same time as feces. An absorbent product was used to manage FI by 45% (n = 85) of respondents. Forty-nine percent (n = 42) of those who used an absorbent product indicated they wore one all of the time, 54% wore one when going out into public, 30% while at home, and 20% while they slept. The types of absorbent products worn were feminine hygiene pantliners by 55%, feminine hygiene pads by 39%, incontinence pantliners by 18%, incontinence pads by 20%, and each of the various types of briefs/underwear were used by fewer than 5% of users. Seven percent reported that they placed toilet tissue between their buttocks in a fill-in-the-blank "other" choice. Sixty-seven percent of those who wore a feminine hygiene pantliner used 1 to 3 per day and only 33% of those who wore an incontinence pantliner used that many. The percentage of those using 1 to 3 feminine hygiene pads per day was similar to those using 1 to 3 incontinence pads per day (50%).

More persons with FI who were 65 years of age or older (58%) used an absorbent product than those < 65 years (39%, p = .013). More females (52%) than males (21%) wore an absorbent product for FI, (p < .001) especially while at home (25% vs. 0%, p = .03) or out in public (44% vs. 2%, p = .04). An incontinence pantliner was the type of absorbent product used by more women (12%) than men (2%) for FI (p = .03). Use of an incontinence pantliner was associated with lesser FI severity (r = -.63, p = .03). A greater percentage of those with FI+UI (28%) used an incontinence pad than those with FI only (9% p = .003). Of those who had FI+UI and wore an absorbent product (n = 29), 98% used the same type of product for both leaked feces and urine.

Evaluation of features of absorbent products including effectiveness, fit, comfort, discreteness, and odor control did not differ between male and female and older vs. younger users (p > .05). Product features that were favored in open-ended responses included inexpensive cost of feminine hygiene products, side wings, thinness, and ability to carry an extra discretely. Recommended improvements included having better odor control, fit, and distinction between the front and back of a pantliner/pad, adding wings, and making them flushable, less warm, and wider and longer in the rear. The effectiveness of a feminine hygiene pad was less when stool consistency was more liquid (r = .38, p = .04). Wearing an absorbent product was not associated with worsening or improving FI associated perineal skin damage (p > .05). A greater percentage of people who used an incontinence pantliner (29%) or pad (31%) were greatly dissatisfied or dissatisfied with the product than those who used a feminine hygiene pantliner (11%) or pad (19%) p = .20. There was no difference in any of the FIQL domains between those who did and did not wear an absorbent product.

Approximately half (52%, n = 96) of community-living people with FI reported experiencing incontinence-associated perineal skin damage. Five percent indicated that they always had perineal skin problems, 10% had them often, and 23% sometimes. Skin redness without broken skin was the most common form of skin damage (37% of respondents), followed by a rash (18%), broken skin (13%) and bleeding (9%). More persons with FI+UI (11%) reported having skin damage than those with FI only (3%) (p = .009). Incontinence-associated skin damage did not differ by age, sex, or FI severity. Seventy-five percent (n = 33) of those who reported a history of perineal skin problems at the start of the study did develop them during the study (p < .001). FIQL did not significantly differ between those with and without skin damage.

### **Interpretation of Results**

Females and older persons with FI and those with FI+UI were more likely to wear an absorbent product. More than one type of absorbent product was used by some. Lesser FI severity was associated with wearing a smaller, lightweight type of absorbent product (i.e., pantiliner). Products with greater absorbent surface area such as a brief were infrequently used. The moderate FI severity among participants may account for greater use of pantiliner and pad type products vs. briefs. Approximately one-third of people were not satisfied with the incontinence product they use, which are typically designed for UI rather than FI. Users suggested changes in product design for FI. Findings provide evidence that UI+FI is a risk for perineal skin damage. Absorbent products appear safe for use with damaged perineal skin.

### **Concluding Message**

Our findings are the first to describe the use of absorbent products for managing FI by a large sample of community-living people, both men and women. Choice of product type seemed to be related to severity of FI than on evaluation of any product characteristic. Women were more likely to wear a pantiliner when FI was mild compared to men. A small surgical-type dressing that fits between the buttocks has been reported to be acceptable to men with mild FI<sup>3</sup> suggesting that men prefer a different design of a lightweight absorbent product. Recommendations for improvement included design features specifically to absorb leaked feces and odor as well as one that accommodates both leaked urine and feces, easier disposable, and a more distinguishable shape. Incontinence-associated perineal dermatitis is common among community-living people with FI. The lack of association between FIQL and skin damage or pad use may be due to the large impact of having FI or that items on the tool are not sensitive to the effects of these variables.

### **References**

<sup>1</sup>Fecal Incontinence Quality of Life Scale: A quality of life instrument for patients with fecal incontinence (2000). *Diseases of the Colon and Rectum*, 43, 9-17.

<sup>2</sup>Comparison of recall and daily self-report of fecal incontinence severity (in press). *Journal of Wound, Ostomy, and Continence Nursing*.

<sup>3</sup>Use of an absorbent dressing specifically for fecal incontinence (2008). *Journal of Wound, Ostomy, and Continence Nursing*, 35(2) 221-228.

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<b><i>Specify Name of Ethics Committee</i></b>	<b>University of Minnesota Institutional Review Board</b>
<b><i>Was the Declaration of Helsinki followed?</i></b>	<b>Yes</b>
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