

Clinical Topics

Pads and pants for urinary incontinence

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Abstract

Fifty-one female patients, incontinent of urine, were asked to compare two different combinations of pants and pads used in the ambulatory management of their incontinence. They were offered the Kanga pant with a Kanga pad and the Sandra pant with a Bambi pad. Each patient tried both pants and pads and thus comparisons could be made on a within-patient basis. Both systems kept a similar proportion of patients dry during the day and night. In terms of comfort, however, the Kanga pant was quite clearly preferred to the Sandra. The Bambi pad was rated more highly than the Kanga pad, although the difference between the two pads was not so pronounced as that between pants.

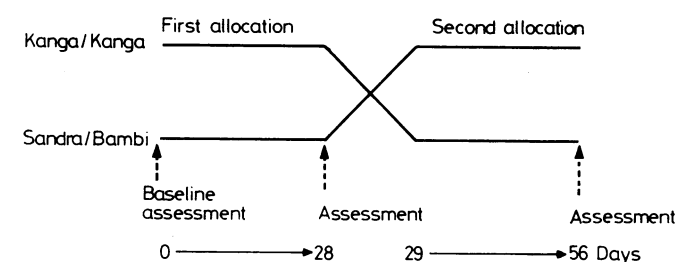
Introduction

Urinary incontinence in women is a common clinical problem, particularly in those aged 65 and over.¹⁻² For many such women active procedures may be inappropriate, and an integral part of conservative management would include using pants and pads to keep dry. Comparisons of the effectiveness of different types of pants and pads are few and have been carried out in a laboratory or for short-term periods in a hospital ward.³⁻⁴ We report here a comparative trial of two types of pants and pads that took place at home.

Method

The trial design was of a "crossover" type where each patient was asked to wear one particular pant/pad combination for four weeks and then the other for a further four weeks (figure). The individual sequence was determined on a random basis.

The products for comparison were the Sandra pant—a plastic pant with elasticated waist and leg opening—used with a Bambi night-time pad. The Bambi pad, while intended by the manufacturers for babies and toddlers, is often used by incontinent patients. Indeed a version of the Bambi pad is now marketed for adults, under the name Dande-liner. The other combination was the Kanga pant, made of woven polyester with an external piece of plastic stitched to form a pouch in the crotch of the pant, into which a Kanga pad could be inserted. We chose these products because they are often included as part of the standard issue offered by NHS supplies departments.



The trial design.

The subjects entered for the study were consecutive female patients who had been referred to the nursing incontinence adviser (JB) for the district and whose subsequent management included the use of pants and pads for urinary incontinence. They all gave informed consent before entering the trial.

Each patient was provided with three pairs of pants and 200 pads for each of the four-week periods.

Patients answered the same questionnaire at the end of the fourth and eighth weeks. Patients chose one of five ranked statements relating to the effectiveness of the pants and pads to keep them dry and gave their views on the comfort and acceptability of the products. Statements as to the preference of patients for a particular product or system were not sought; comparisons were made individually by comparing the answers given to certain questions at the end of the two periods.

In an attempt to provide at least a partial check on the consistency of the answers offered by patients another question was posed asking them to show their overall opinion of both pants and pads separately by placing an "X" on a 10-cm line whose poles were recorded as "very bad" and "very good." Distances were measured from one pole and within-patient distances compared for the two pants and pads.

Analysis

On the basis of the null hypothesis that there were no true differences between the products being compared, the probabilities have been calculated of obtaining the results we did, having excluded those patients who ranked the two products equally, thus implicitly expressing no preference for one or the other. To do this we calculated χ^2 values as an approximation for the binomial distribution.

The within-patient differences derived from the 10-cm line analogue have been analysed using the Wilcoxon matched-pairs signed-ranks test.

Results

Fifty-five patients were admitted to the trial. During the study one patient was admitted to hospital and catheterised, another withdrew, and two died, leaving 51 patients who completed both parts of the trial. Their ages were as follows: 25-34 (2 patients), 35-44 (4), 45-54 (7), 55-65 (5), 65-74 (15), 75-84 (11), and 85-94 (7). Two-thirds had been incontinent of urine for five years or more. In slightly over

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80% of cases incontinent episodes were occurring daily or almost daily.

The ability of the pants and pads to keep patients dry was asked with respect to both day (table I) and night-time use. The distribution of answers amongst the five ranked statements was similar for both pants and pads whether worn during the day or night. Both "systems" appeared to be effective with about 80% claiming that they were dry almost all the time or most of the time. Within-patient comparisons of the ranked statements showed that 25 patients gave the two systems the same score. Twelve preferred the Sandra/Bambi combination while 11 preferred the Kanga/Kanga. (Three patients did not wear pants and pads both day and night (see footnote to table I).) Similar results were obtained for night-time use. The same pattern of results was obtained whichever sequence was used.

As to comfort the clear differences shown for the pants (table II) were corroborated by the within-patient comparison of the statements (table III) with Kanga being quite clearly the preferred pant. Similar but less pronounced differences in preference were obtained for the pads with Bambi being accorded higher rating than Kanga (tables II and III) by most patients.

Scores for individual patients as recorded using the 10-cm line analogue supported these results (50 preferred the Kanga pant, one the Sandra; 33 preferred the Bambi pad, 18 the Kanga). In taking the size of the within-patient differences into account the performance of the Kanga pant was quite clearly thought to be the better pant with a mean difference of 63 mm (SD 31 mm), a statistically highly significant result ($p < 0.001$). Differences for the two pads were, as indicated in tables III and IV, less clear cut with about two-thirds of patients preferring the Bambi pad. Also the mean within-patient differences for the pads was considerably smaller than that for the pants (15 mm as opposed to 63 mm, SD 44 mm against 31 mm) although again highly significant statistically ($p < 0.01$).

We also asked an open-ended question as to what features of the products we tested, patients liked or disliked. While some commented that they felt "secure" in the Sandra plastic pants, 46 specifically mentioned that they were "hot" or "clammy" to wear. In contrast, the Kanga pant was praised for its comfort and "softness." Patients commented also on the comfort and softness of both pads but criticised the Kanga pad for its bulk—some women, for example, felt self-conscious wearing trousers because of this.

TABLE I—Replies of 51 patients to the question: "Would you say that the pants and pads you have been using for the past four weeks have kept your clothes dry during the day?"

Ranked statement	Kanga pant and Kanga pad	Sandra pant and Bambi pad
Almost all the time ..	34	30
Most of the time ..	5	10
About half the time ..	6	4
A little of the time ..	1	2
Hardly any of the time ..	3	2
Not applicable* ..	2	3

*These patients wore pants and pads only at night. The difference in the two columns results from one patient who changed her pattern of use. For the first half of the study she had worn pants and pads during the day and night, for the second half she wore them only at night.

TABLE II—Replies of 51 patients to the question: "Would you say that the pants/pads you have been using for the past four weeks were ..."

Ranked statements	Pant		Pad	
	Kanga	Sandra	Kanga	Bambi
Very comfortable ..	25	—	10	24
Comfortable ..	20	6	16	17
Satisfactory ..	4	3	9	3
Uncomfortable ..	2	22	15	7
Very uncomfortable ..	—	20	1	—

TABLE III—Comparison of within-patient statements for comfort of the two pants and pads

Pants			Pads		
Same rank ..	..	1	Same rank ..	..	13
Ranked Sandra > Kanga ..	..	1	Ranked Bambi > Kanga ..	..	27
Ranked Kanga > Sandra ..	..	49	Ranked Kanga > Bambi ..	..	11

$\chi^2 = 44.2$; df = 1 : $p < 0.01$.

$\chi^2 = 5.92$; df = 1 : $p < 0.05$.

The number of pads used for the two halves of the study did not differ.

Discussion

Many of the judgments made by our patients about their experience with the two makes of pants and pads are inevitably subjective. Nevertheless, these are the patients' perceptions that together with their expectations are likely to determine their satisfaction with medical care. Again, values attached to given symptoms by staff and patients may differ⁵ and for this reason we attach particular weight to the opinion of those who wore the pants and pads. Given that we wanted our study to be domiciliary-based and that our patients should wear the pants and pads for four weeks it would have been difficult to have obtained more objective measures of outcome.

The problem of inter-patient variation—for example, perhaps, in thresholds of comfort—have been overcome by using the comparisons of the ranked statements for the two pants and pads on a within-patient basis.

To reduce the size of observer variation one nurse administered all the questionnaires. At the same time, the study is open to the criticism that it was not "blind" and that observer bias might have contributed to a large extent to the results we obtained. We cannot exclude this factor, but our nurse was instructed in administering questionnaires and made aware of the possible sources of systematic error.

The designer of the questionnaire had not worn incontinent pads and assumed that each pant and pad represented a "unit" or "system" and should be evaluated as such. Patients in a pilot study, however, readily distinguished between, for example, the relative comfort of the pants and pads. We therefore asked separately about the comfort of each type of pant and pad, although retaining the unitary concept for assessing the effectiveness of the pants and pads to keep patients dry. From our results both combinations of pants and pads appeared to be equally effective. Yet differences did emerge in how comfortable the items were to wear. The use of a 10-cm line analogue provided supportive data to the answers obtained for the ranked statements. The Kanga pant was quite clearly preferred to the Sandra and of the two pads, most patients preferred the Bambi.

While we would not argue that one type of pant and pad will suit all patients with urinary incontinence, where these items are a mainstay of the management, we think it important to conduct evaluative comparisons. It would thus be reasonable to offer, in the first instance, the most economic and acceptable pant and pad to any new patient. At the same time evaluations would provide information for health authorities so that contracts negotiated at regional level would be with the manufacturers of suitable products.

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