

Evaluating skin care problems in people with stomas

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Stomas are surgically created where a section of bowel is brought to the surface of the abdomen, allowing the flow of faeces or urine to be redirected. With no sphincter present to maintain continence, the patient is required to wear a stoma appliance at all times.

The type of appliance will depend on the consistency of the effluent: for formed stool, a closed pouch is needed; for liquid stool, a drainable pouch is used; and, for urine, a tapped pouch is fitted. All stoma appliances come as a one- or two-piece system and are emptied and renewed as required.

There are approximately 102 000 people at any one time in the UK with a stoma (Herlufsen et al, 2006). Stomas can be temporary or permanent—65% of ostomists will have a permanent stoma (Black, 1997). Conditions resulting in stoma surgery include colorectal or bladder cancer, ulcerative colitis, Crohn's disease, severe faecal or urinary incontinence and trauma.

One of the goals of good stoma management is to maintain healthy peristomal skin. Skin around the stoma should be clean, dry and intact; there should be no difference between peristomal skin and the remainder of the healthy abdominal skin.

Stoma care is generally best kept as simple as possible, with the use of minimal or no stoma accessories, although a recent study suggested using a silicone-based remover rather than water to ease stoma appliance removal (Rudoni, 2008). Before guiding the stoma patient in the selection of a suitable appliance, the stoma care nurse specialist needs to be mindful of a number of aspects relating to the surgical procedure, the stoma itself and the patient's abilities and preferences.

The adhesive base of the stoma appliance will have a hydrocolloid skin barrier and/or a hypoallergenic adhesive. The hydrocolloid component of the base plate acts a protective barrier for the skin and additional security is provided by the hypoallergenic adhesive.

Abstract

Aim: This study aimed to identify actual and potential peristomal skin problems in relation to the use of different types of stoma appliances and accessories. It also compared ostomists' perceptions of their peristomal skin condition with those of stoma care nurse specialists. **Background** Maintaining skin integrity is a basic skill that ensures good stoma management. It is widely accepted that from time to time a patient with a stoma will seek clinical advice about a peristomal skin problem. Little is known about how often patients present with these problems, the clinical course of peristomal skin problems, and how patients manage them. **Method:** A multi-centred descriptive study was conducted among 80 ostomists. Fieldwork took place over 13 months. The sample was drawn from a UK home care delivery database. Using structured questionnaires, ostomists were interviewed by a stoma care nurse specialist. A digital photograph was taken of their peristomal skin and their answers compared with nurse assessment using the Stoma Care Ostomy Research index scoring system. **Findings:** Of the interviewees 32% had healthy peristomal skin both via questionnaire and at observation. At observation, 68% were observed to have peristomal skin problems, of whom 44% had irritated skin, 12% had ulcerated skin, 9% had an apparent allergy and 3% had macerated/eroded skin. In addition, 21% had an ill-fitting appliance at observation. Half (50%) were observed to have a parastomal hernia, although only 24% reported having one. These findings demonstrate significant differences between the perception of skin problems among ostomists and actual skin problems observed by stoma care nurse specialists. **Conclusions:** Peristomal skin problems are common among ostomists. The difference between ostomists' and nurses' perceptions of peristomal skin condition led to the identification of educational needs for the new ostomist. Education and regular follow-up by the stoma care nurse specialist is imperative.

Key words: Abdominal stoma ■ Peristomal skin care ■ Stoma care management ■ Education

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If the stoma is irregular in shape, an appliance where the opening can be cut to fit should be used. The stoma care nurse specialist can create a template of the actual stoma size and shape and use it as a guide to cut the aperture of the appliance accurately.

When the stoma is regular in shape, a pre-cut opening can be used to fit securely around the stoma, although the correct sizing must be ascertained. Too large an aperture may lead to excoriated skin and too small an aperture may lead to constriction of the stoma and, in severe cases, ischaemia can occur.

Peristomal skin problems are significant, affecting one third of colostomy patients and more than two thirds of urostomy and ileostomy patients (Hellman and Lago, 1990; Lyon et al, 2000). A recent study by Herlufsen et al (2006) found that the frequency of peristomal skin disorders is higher than reported previously; they found that 57% of ileostomists, 48% of urostomists and 35% of colostomists have skin problems related to their stoma. A simple survey by Jemec and Nybaek (2008) suggests that peristomal skin problems pose a significant burden among those with a stoma and contribute considerably to the workload of the stoma care nurse specialist.

A variety of complications can arise from stoma surgery and the quality of life of individuals can be adversely affected. Complications that may initially appear minor and easily rectified can restrict the patient's rehabilitation and adaptation to their stoma (Bekkers et al, 1995; White, 1998). Sore skin and leakage of the stoma appliance are considered to be the main concerns for ostomists, as illustrated by Prieto et al (2005) in a recently quality of life study.

Reviewing the literature

Indications from clinical practice are apparent, demonstrating the prevalence of peristomal skin problems resulting from the abnormal stresses to which the skin is subjected underneath the stoma appliance. These stresses include occlusion, maceration, irritation and shearing forces, for which the skin of the abdomen is not adapted. These factors will increase the likelihood of infection, allergy and irritant dermatitis.

In addition to this, there may be pre-existing skin diseases such as psoriasis, which can appear should the peristomal skin become damaged. If the peristomal skin becomes damaged, it can not only affect the person with a stoma physically, but also be detrimental to their psychological wellbeing and, ultimately, prolong rehabilitation and adaptation to the stoma surgery (Bekkers et al, 1995).

The goal of skin care within stoma care nursing is to maintain good peristomal skin. The integral adhesive wafer of the stoma appliance is made of hydrocolloid substances that protect the skin from faeces and urine. However, if poor technique is used to change the appliance or if the patient has a pre-existing skin condition, peristomal skin problems can arise.

Psoriasis and eczema are the most common pre-existing skin diseases and often require specialist dermatology assessment and treatment. This treatment may include use of a moderate-strength steroid, usually applied as a lotion.

With care, the lotion can be applied to allow adhesion of the stoma appliance. Lyon (1999) suggests that this treatment should be restricted to 4 weeks. Some ostomists may require patch or prick testing prior to surgery to determine skin sensitivity.

Lyon and Smith (2010) suggest that patients who physically pull their stoma appliance off to remove it, rather than easing it from the skin, are more likely to suffer from peristomal skin breakdown.

Berry et al (2007) point out that appliance removal will inevitably lead to the removal of loosely bound epidermal cell layers and that more cells will be removed as the process continues. Dykes et al (2001) suggest that skin stripping can be at best uncomfortable and at worst very painful for the ostomist.

Any stripping of the skin has the potential to affect the adhesion and consequent security of the appliance owing to increased moisture (Cutting, 2006). In a recent study, 91% of ostomists found it easier to remove their stoma appliance using a silicone-based adhesive remover rather than tap water (Rudoni, 2008).

Allergies are rare and represent fewer than 1% of peristomal skin problems (Lyon et al, 2000). When an ostomist presents with a peristomal rash following excoriation as a result of leakage, allergy is not usually suspected. Classically, if allergy is present, the affected area of skin takes up the shape of the appliance.

Once an assessment of the skin problem has been sought, attempts must be made to identify the substance causing the allergy to eliminate it and resolve the problem. Patch or prick testing is a common procedure undertaken by a dermatologist or stoma care nurse specialist and will determine the source of allergen. It involves fixing small pieces of the suspect substance to another area of skin away from the problem area to determine if a skin reaction occurs.

Appliance manufacturers are usually willing to help by giving information about the compounds used in their products so that a suitable appliance that does not incorporate the allergen can be identified (Lawson, 2003). Lyon (1999) points out that, until a large research study of all stoma patients with a rash has been completed, the true incidence of contact allergy and the allergens involved will remain unknown.

Peristomal ulceration can severely affect patients' lifestyle as a result of pain and discomfort and/or poor stoma appliance adhesion. Although rare, the most common cause of ulceration is pyoderma gangrenosum (Lyon, 1999). Associated with inflammatory bowel disease, it is characterized by its painful ulceration that develops into bluish webbing with a purulent exudate (Burch, 2004). Treatment tends to be a topical steroid, although the individual may require additional systemic treatment.

Viral, bacterial and fungal infections account for 10% of skin problems among stoma patients (Lyon, 1999). The warm and humid conditions underneath the adhesive appliance of the stoma bag are ideal for the potential growth of many different microorganisms.

The literature identifies many reasons why peristomal skin problems occur, but much is expert opinion rather than empirical studies. It is widely acknowledged that complications associated with stoma surgery, both short and long term, can lead to peristomal skin problems (Lawson, 2003; Rolstad and Erwin-Toth, 2004; Cottam and Richards, 2006). These include parastomal hernia, prolapse and retraction. In these instances, the care of the stoma is likely to be different from usual stoma care, as the ostomist may have problems cleansing the stoma, fitting the appliance or maintaining security, all of which lead to potential peristomal skin problems.

There is a lack of information on the frequency of stoma problems and this study was designed to identify this frequency.

The study

Aim and objectives

The aim of this study was to identify common skin problems among those living with a stoma, allowing the educational needs of this patient group to be identified by stoma care nurse specialists by:

- Understanding the skin care issues faced by patients with stomas
- Examining behaviour among patients with stomas in relation to their skin care
- Comparing the condition of the skin between one and two-piece appliance users
- Identifying ways to help patients to improve peristomal skin care management.

Design

Based on the review of the literature, a structured questionnaire was developed by the research team. A pilot study with three participants was undertaken by the principal investigator, so the questionnaire could be tested and revised. The pilot also gave the research team the opportunity to standardize their definitions of skin disorders.

Face-to-face interviews, structured around the questionnaire, were carried out by nine researchers at five centres. All the researchers were working as specialist stoma care nurses. Fieldwork took place over a 13-month period, from June 2007 to July 2008.

Following completion of the questionnaire, which highlighted any peristomal skin problems from the participant's perspective, a digital photograph of the peristomal skin area was taken by the researcher. Reported problems were then compared against the photographic evidence.

The digital photograph was scored by the research team using an adaptation of the Ostomy Observation Index (Dansac, 2005), namely the Stoma Care Ostomy Research (SCOR) index. Scoring was based on the severity of the peristomal skin problem (Figure 1) and had to be agreed by four of the six researchers available during the scoring process.

The questionnaire and photograph took approximately 60 minutes to complete.

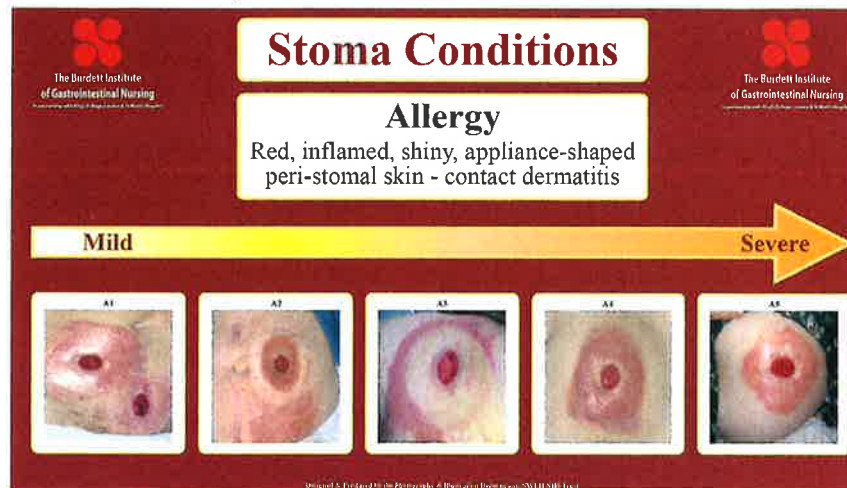


Figure 1. Example section of the Stoma Care Ostomy Research index

Stoma Care Ostomy Research index

The SCOR index was devised as a means of measuring peristomal skin conditions for participants within the study. Permission was sought to adapt this tool from an established ostomy observation index (Dansac, 2005) allowing the researchers to score the severity of the peristomal problem.

Prior to commencing the study, the research team defined healthy peristomal skin as well as the common peristomal skin disorders highlighted within the literature review. Healthy peristomal skin was defined as the complete absence of any visible difference between peristomal and other abdominal skin. Peristomal skin disorders were classified and coded for severity, from mild to severe. Each of the common peristomal skin problems was coded: allergy; ulceration; erythema; macerated/eroded; and irritation (Figure 1).

Participants

Ethics and local research and development department ethics committee approval was given at all five sites.

Ostomists from around the UK were invited to participate in the study. They were recruited from a home care delivery database. The sample size was calculated on the basis of an estimate of the percentage of patients with peristomal skin problems, accurate to within 5% of the true population of all ostomists within the UK, indicating that 128 subjects were required for the study.

Participant recruitment criteria included all ostomists over 16 years of age, who have had a stoma for over 3 months and lived in a convenient location for a research centre.

Patient information leaflets with a reply slip were sent to potential participants ($n=602$); 128 (21%) replied and were willing to participate in the study. In total, 80 (62%) of respondents (52% male, 48% female) consented to participate in the study and were subsequently interviewed at a centre local to where they lived.

Seventy-five (94%) described themselves as having a permanent stoma: 31 (39%) were colostomists; 34 (42%) ileostomists; and 15 (19%) urostomists. Of these, 50 (63%)

Table 1. Participant profile (n=80)

Total sample	Number	%
Male	42	52
Female	28	48
Age (mean) 61 years	18–85 years	-
Length of time with stoma (mean) 10 years	1–54 years	-
White	79	99
Asian	1	1
Colostomy	31	39
Ileostomy	34	42
Urostomy	15	19
Temporary stoma	4	5
Permanent stoma	76	76
One-piece user	50	63
Two-piece user	30	37
Flat-backed flange	53	66
Convex flange	24	30
Other	3	4

were one-piece appliance users (Table 1). Of the 48 (38%) who did not participate but said they were willing to, 22 were unable to be contacted, 18 decided not to participate and eight reported transport difficulties.

Data collection

Structured interviews were carried out by the research team at their location site.

The structured questionnaire addressed common issues in the management of a stoma, including type of stoma, consistency of output, type of stoma appliance and accessory usage, and the number of problems experienced by the participant in relation to their stoma.

Where appropriate, participants were asked to expand on their experiences, including stoma care management techniques. A digital photograph was taken of the peristomal area prior to the interview; these were later classified using the SCOR index after fieldwork by the research team, who were blind to the questionnaire findings.

Scoring the photographs as a group, each peristomal skin problem (Figure 1) required agreement from four out of the six researchers available during the process. Each researcher was given the same camera and guidelines were issued to ensure consistency in the quality of the images.

Ethical considerations

Participation in the study was not expected to lead to any risks as the study was not deemed interventional. Participants with evidence of peristomal skin problems were invited to attend the next available local stoma clinic to be offered help and guidance from the stoma care nurse specialist. The participants received no payment for their participation, although transport expenses were covered.

Data was stored in a password-protected computer at the principal investigator's research base. Confidentiality was ensured by coding both the questionnaire and photograph. Data analysis was performed using the SPSS statistical package.

Limitations

It is likely that there is an inherent bias in the information gathered, as only users of a dispensing appliance contractor service were invited to participate, who may or may not be representative of the entire ostomy population.

It is also acknowledged that there was a likely bias in that those who were experiencing problems would be more likely to participate in the questionnaire and than those without problems.

Therefore this was not a true epidemiological study, but rather a mapping exercise to identify peristomal skin problems.

Data analysis

Unless otherwise stated, the findings shown are based on responses elicited from the participants during interviews. Where findings are based on observation, this is indicated.

For presentation purposes, data has been rounded to the nearest whole number. The significant data is highlighted and discussed but should be treated with caution in view of the small sample size.

Results

Basic stoma care

The mean duration of living with a stoma was 10 years (1–54 years), with the majority of stomas being created between 2000 and 2006. The average age of the ostomists participating in the study was 61 years (18–85 years).

Each of the stoma types were represented (Table 1), and 94% of participants stated that their stoma was permanent. In relation to the Bristol Stool Chart (Heaton, 2000) (Figure 2), participants with a faecal stoma described the consistency of their output to be type 4 (28%) or type 6 (25%). The remaining 28% declined to answer the question.

The majority of ostomists used a one-piece system (64%). Of these, half were using a convex flange to improve security. One third of the 36% who used two-piece systems were using appliances with convex flanges. Eighty-five percent of all interviewees had remained with the same stoma appliance type since surgery.

The average number of stoma appliance changes per week varied; one-piece users tended to renew their stoma appliance on a daily basis (52%), while the remainder changed every second or third day. Two-piece users tended to renew their appliance every 3–4 days (67%) while the remainder would renew appliance every 5–10 days.

When cleansing the stoma, ostomists preferred to use water (88%) and/or dry wipes (83%) as part of their normal routine, irrespective of stoma or appliance type. Only 8% did not use any accessory products to assist the removal and/or security of the stoma appliance. Nearly half (44%) of participants reported using an adhesive remover on a regular basis.

Care of peristomal skin

Nearly half (48%) of participants considered themselves to have normal skin, with 22% describing a pre-existing skin condition. However, the type of pre-existing skin condition was not reported. The other 40% did not respond.

On the day of the interview, the majority of participants (84%) described their peristomal skin to be very to fairly good, irrespective of type of appliance used. The remaining 16% reported their peristomal skin to be not very good (12%) or did not respond (4%).

Based on the observations of the researchers, 79% of all appliances were observed to be fitting correctly. This included having an accurately sized aperture to the base plate of the flange and/or bag with the purpose of protecting the peristomal skin against contamination from the eliminating effluent.

Skin problems

Almost all participants had experienced a stoma problem of some description since having their stoma; 54% experienced at least two or three stoma problems on a regular basis.

Participants were asked to describe their experiences regarding common stoma problems such as appliance leakage (day and night), sore peristomal skin, itchy skin, bleeding, odour and general discomfort.

When questioned about leakage, 85% of all participants described experiencing daytime leakage at some point since having the stoma and 79% reported night-time leakage. This occurred on a regular basis for 17 % of the participants during the day and 15% at night, irrespective of stoma type and appliance. Sore skin had been experienced by 77% of all participants at some point since their stoma was created, with 23% saying they had sore skin on a regular basis.

Itchy skin was experienced by 60% of all participants at some point and regularly for 25% of participants.

Nearly half of the participants had experienced the feeling that the stoma smelt while the stoma appliance was in place and, for 17%, odour was a regular and distressing occurrence.

Stomal complications such as parastomal hernia, prolapse or retraction can lead to peristomal skin problems. These associated complications were seen among the participants when the researchers carried out their observations; parastomal hernia was seen in 50% of all participants, prolapse in 48% of one-piece users and retraction in 60% of two piece users. It is not clear whether ostomists were using the particular appliance to manage the complication.

Ostomist awareness of stoma problems

As previously stated, on the day of interview, 84% of participants described their peristomal skin to be very to fairly good. On classification of the digital photograph using the SCOR index, the research team determined that only 32% of all participants were found to have healthy peristomal skin.

The remaining 68% were perceived to have stoma problems requiring further intervention. These stoma problems included irritated peristomal skin, ulceration, allergy and erosion. These stoma problems were irrespective of stoma type and appliance.

Participants were also asked whether they had a parastomal hernia. Only 24% of participants said they had a parastomal








• Hard to pass	Type 1	Separate hard lumps, like nuts (hard to pass)	
	Type 2	Sausage-shaped but lumpy	
• Ideal consistency	Type 3	Like a sausage but with cracks on its surface	
	Type 4	Like a sausage or snake, smooth and soft	
• Difficult to control	Type 5	Soft blobs with clear cut edges (passed easily)	
	Type 6	Fluffy pieces with ragged edges, a mushy stool	
	Type 7	Watery, no solid pieces. Entirely liquid	

Figure 2. Bristol Stool Chart

hernia. However, on observation by a researcher, 50% of all participants were seen to have a parastomal hernia, of whom only 11% were wearing an appropriate support garment.

Discussion

Much of the literature available explores treatment recommendations for stoma complications, but does not explore the frequency of stoma problems and whether the ostomist has been educated so they are able to identify when a problem occurs.

This study aimed to identify common peristomal skin problems among those living with a stoma. Exploring both one- and two-piece usage, this study also compared ostomists' perceived perceptions of stoma problems with an actual problem as observed by the research team.

The most common peristomal skin problems—irritation, erythema, maceration, ulceration and erosion—can all be related to contact with stoma output (Lyon et al, 2000). Skin stripping from frequent renewal of stoma appliance, allergy or infections (Rolstad and Erwin-Toth, 2004) are also considered reasons for peristomal skin problems.

Previous studies have recognized the incidence of peristomal skin problems (Lyon et al, 2000; Herlufsen et al, 2006; Jemec and Nybaek, 2008), yet ostomists continue to not seek professional support and guidance, as the condition becomes the norm. There is little literature to explain the reason for this other than lack of accessibility to stoma clinics and specialist support (Herlufsen et al, 2006) or, indeed, a view that it is fatalistically accepted by this group of patients.

The study demonstrated a high frequency of observed stoma problems (68%) among a group of ostomists who mostly (84%) described their peristomal skin to be very to fairly good. The frequency of peristomal stoma problems is reflected in other studies (Lyon et al, 2000; Ratliff and Donovan, 2001; Ratliff et al, 2005; Herlufsen et al, 2006; Jemec and Nybaek, 2008).

The concern is that ostomists are unable to recognize peristomal skin problems as they occur; if they could, this could empower them to seek stoma care assistance.

Table 2. Observed peristomal problems

	One-piece system (%)	Two-piece system (%)	All (%)
Healthy peristomal skin	34	30	32
Any irritated	40	48	44
Any ulcerated	12	14	12
Any allergy	10	8	9
Any macerated/eroded	4	-	3
Any parastomal hernia	56	48	53
Any prolapse	48	22	40
Any retraction	22	57	33

Table 3. Stoma accessory usage

Accessory	One-piece users (%)	Two-piece users (%)	All (%)
Adhesive remover	48	35	44
Barrier wipes	36	48	40
Stoma seal	26	35	29
Deodorizing spray	24	30	26
Adhesive plasters	16	17	16
Barrier creams	8	22	12
Girdle/support belt	14	8	12
Stoma paste	8	17	11
Skin cleansers	6	13	8
Skin protector wafer	6	13	8
Barrier sprays	6	4	5
Adhesive spray	4	-	3
Wound dressing/management	-	8	3
Skin soothers	2	4	3
Other	28	30	29
None	12	-	8

Basic stoma care management varied greatly among the participants but, in the main, they cleansed their peristomal skin with water and/or dry wipes. Stoma accessory usage was high (Table 3) among the participants, with only 8% saying they did not use any other product to assist with the security and/or removal of the stoma appliance.

This is of some concern as 44% of participants had presented with an unrecognized irritated skin, suggesting poor stoma care management.

Little evidence exists to support the use of stoma accessories, although Fore (2006) recommends limiting the use of harsh solutions to cleanse the peristomal skin that so often result in stripping the skin. It is well recognized that damaged peristomal skin often leads to inadequate adhesion of the stoma appliance, with a consequence of leaking appliances (Black, 2007) which, in turn, cause distress and embarrassment for the ostomist.

Further investigations are needed to determine how severely ostomists view their peristomal skin problem compared with the researchers' observations. It was noted that the majority of participants viewed their peristomal skin as very to fairly good, implying that there was no actual

problem that would necessitate them to seek advice. The study highlights that 68% were deemed to have a significant peristomal skin problem observed by a researcher that was considered to require professional intervention.

Indeed, 36% of the participants were observed as having a retracted stoma, yet only 30% of these reported using a convex product that a stoma care nurse specialist would consider necessary for such a stoma complication. Similarly, 24% of the participants reported a parastomal hernia, while 50% were observed to have a parastomal hernia. Of these, only 11% wore a suitable support garment necessary for this condition.

There is a possibility that health professionals are overlooking the educational needs of the ostomist. Previous studies suggest that ostomists often cope alone (Smith et al, 2002; Ratliff et al, 2005; Herlufsen et al, 2006; Meisner and Balleby, 2008).

Excluding the urostomists, 38% of the participants (14% ileostomists, 12% colostomists, 12% non-response) declined to equate the consistency of their stoma output against the Bristol Stool Chart (Heaton, 2000), which could imply that basic stoma care education requires reinforcement.

If, as Berry et al (2007) report, the majority of stoma care nurse specialists strongly believe that those with excoriated peristomal skin have different needs from those with healthy peristomal skin, then stoma care nurse specialists need to recognize the educational requirements of the ostomist.

Since the recent publication of the Department of Health (DH, 2009a) consultation document in relation to the supply of stoma and incontinence products in England, implementation of appliance user reviews has begun to take place. The purpose of appliance user reviews is clearly outlined within the consultation document (DH, 2009b); however, these are limited to the usage, storage and disposal of stoma appliances only.

The need for continued follow-up for this group of patients is well documented in the literature (Herlufsen, 2006). White (2002) suggests psychological adjustment following life-changing surgery is largely dependent on the provision of high-quality information and support and the specialist nurse is best placed to deliver this.

Opportunities to improve education, knowledge and information giving among ostomists is of paramount importance as this study highlights. Offering continuity of care will, undoubtedly, increase the clinical workload for the specialist nurse but will, ultimately, lead to a higher standard of stoma care resulting in a well-educated, well-adjusted ostomist.

Conclusions

Stoma care nursing is steeped in tradition and increasingly needs evidence-based practice (Gray, 1998). Research in stoma care is primarily undertaken to develop new products for patients. This research study aims to improve patient care by exploring the needs of the ostomist in relation to skin surrounding the stoma.

The study suggests that ostomists frequently fail to perceive that they have a peristomal skin problem and do not see the need to seek clinical support from the specialist

nurse. This would suggest that more education and perhaps regular annual follow-up visits to local stoma care clinics are needed.

To ensure optimal peristomal skin health in individuals living with a stoma, future studies are required to understand the ostomists' own health beliefs and educate stoma care nurse specialists to meet this need.

What is already known about this topic:

- Good skin care is an integral aspect of stoma care management
- A variety of skin disorders can occur around the stoma
- Complications that may initially appear minor unless rectified can restrict a patient's rehabilitation and adaptation towards their stoma.

What this paper adds:

- Peristomal skin problems are more commonly observed than reported
 - Peristomal skin problems occur irrespective of appliance type
 - The use of stoma care accessory products is high among ostomists.
- Implications for practice and/or policy:
- Nurses need to educate ostomists to recognize early complications relating to skin care.
 - The result of the recent DH consultation document (2009b) will increase clinical workload due to the appliance use reviews. **BJN**

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KEY POINTS

- Peristomal skin problems are more commonly observed than reported
- Ostomists may believe that their skin is normal even if it is showing a problem, so nurses need to educate them to recognize early complications
- Problems that may initially appear minor unless rectified can restrict a patient's rehabilitation and adaptation towards their stoma
- Peristomal skin problems occur regardless of appliance type
- Ostomists commonly use stoma care accessory products
- Clinical workload is likely to increase with appliance use reviews