

# Dermatology nursing in the community: The Mitchell's Plain experience

*Dermatology is an important element of community nursing.*

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## Background

Dermatology is a specialty in which an in-depth knowledge of topical therapies is required to help patients and provide an effective service. Topical therapy is central to the appropriate and effective control of most dermatological conditions. Most importantly, anyone dealing with skin conditions has to be comfortable touching diseased skin and familiar with topical applications to demonstrate their use to patients and caregivers. Moreover, adequate quantities of topical medication should be prescribed. Avoid discontinuation of treatment for chronic conditions if the skin condition appears to be controlled; it is under control because medication is being used. Treatment does not simply involve writing a script with advice to use as prescribed and to call back within three months.

Internationally, dermatology training in undergraduate pharmacy, nursing and MB ChB curricula is minimal to non-existent. Consequently, most people with significant skin disease are not adequately diagnosed and are certainly inappropriately managed.

Recognising this need, the Department of Dermatology at the University of Cape Town, together with the Department of Nursing Education at Groote Schuur Hospital, introduced a short course in dermatology nursing in 1997. The curriculum was designed to provide nurses with a sound grounding in the diagnosis and management of common skin diseases, empowering them to provide these neglected services in the community. Financial support came from Rotary International and the pharmaceutical industry. The course was given international recognition for dermatology, with the inclusion of a leprosy module. Since its inception, we have trained 157 nurses from South Africa, Botswana, Kenya, Lesotho,

Malawi, Niger, Sierra Leone, Zimbabwe and Zambia, many of whom provide the only dermatology service in their area. In South Africa nurses run clinics at Hout Bay, in the Overberg, at Mthatha General Hospital and now in Mitchell's Plain.

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While completing the Clinical Nurse Practitioner's course in 2005, I found studying the skin and skin diseases very interesting. In 2006, I was able to extend my fascination with the skin by doing the dermatology short course, with the aim of providing a dermatology service in Mitchell's Plain in the Western Cape. In 2012, I was one of the first graduates of the Postgraduate Diploma in Dermatology Nursing offered by the Division of Nursing at the University of Cape Town.

My journey of discovery, which I outline below, has been both difficult and fulfilling and ended in initiating and facilitating the design and development of the dermatology clinic and day care service at Mitchell's Plain Community Health Centre. This has had a significant impact on, and made a huge difference to, the healthcare of many patients and their families.

## The Mitchell's Plain community and services

Mitchell's Plain, a suburb of Cape Town, is situated on the Cape Flats. It encompasses

approximately 22 residential areas with a population 1.8 million and is situated 27 km from central Cape Town. Until recently, the nearest dermatology clinics for this community were at tertiary hospitals, i.e. Groote Schuur and Red Cross. This meant that patients with skin diseases had to travel 54 km and take a day off from work or school to be treated or to collect monthly medication at an average cost of R40 per round trip by local taxi or poor bus service.

The Mitchell's Plain Community Health Centre manages approximately 40 000 patients a month. It is strategically placed within the local community business area and is easily accessible for most residents. It operates a 24-hour emergency service and currently provides 32 different clinical services, including dermatology.

An increasing number of patients with skin complaints present at the general clinics, but there is a lack of expertise in dermatology among staff at the health centre. Furthermore, the Western Cape Health Care Plan for 2010 emphasises primary care. It has outlined the need for proper channelling and avoiding unnecessary patient referrals to tertiary hospitals for specialist services, including dermatology. Consequently, the need for a community dermatology service was recognised.

## The Mitchell's Plain community nurse-led dermatology service and day care unit

The seeds for the Mitchell's Plain primary care dermatology clinic were sown and from its inception in 2006 it slowly evolved into the flagship dermatology service envisaged for the Western Cape. Because of my interest in skin disease, I was ideally placed to initiate the service. On completion of the dermatology short course I felt empowered to

## Dermatology in Mitchell's Plain

start the clinic. In the early days as a clinical nurse practitioner with dermatology expertise I was allowed to see 5 patients during one morning clinic session a week over and above my general clinic sessions. Recognising that the clinic would grow only if the community centre increased the number of referrals to the clinic, I continued to remind the administrators and healthcare workers of the improved care offered to patients with skin disease at the weekly clinic. Gradually the patient numbers at the clinic increased. By the end of 2011 more than 30 patients were being treated daily and the need for a special day care dermatology clinic was acknowledged by the Medical Superintendent, Dr James Claassen, supported by Dr Keith Cloete, Chief Director, Metro District Health Services. A successful appeal to the provincial government was made at a fortuitous time of restructuring and expansion of the Mitchell's Plain Community Health Centre. With government backing, construction began on the Mitchell's Plain Dermatology Clinic. This was to be modelled on the very successful Groote Schuur Hospital nurse-run dermatology treatment day care centre.

Three consulting rooms were redesigned to provide consulting and treatment facilities, with input from the Division of Dermatology. Once the plans were approved, renovations began and the area was converted into the present nurse-driven clinic. It was officially opened by Theuns Botha, Minister of Health, Western Cape Government, on 25 October 2011 (Fig. 1).

The Groote Schuur Hospital dermatology day care centre is run by a clinical nurse practitioner and an enrolled nurse and accommodates up to 600 patient treatment visits monthly.



Fig. 1. The wall plaque outside the dermatology clinic and day care centre, commemorating the official opening of the centre by Theuns Botha, Minister of Health, Western Cape Government, on 25 October 2011.

As the Mitchell's Plain dermatology clinic service was to offer additional diagnostic and treatment services, a clinical nurse practitioner, two registered nurses and an enrolled nurse assistant provide the entirely nurse-led daily service.

Patients are seen and managed as down-referrals of stable chronic diseases from the tertiary facilities to ensure that medication is provided and that any problems are managed. Healthcare workers in the Mitchell's Plain area refer patients directly to the clinic for diagnosis and management. Most of them receive adequate and appropriate care in the community centre, but there is also direct telephonic contact with staff of the tertiary dermatology service, who provide teledermatology and/or emergency back-up. Patients in urgent need of facilities and treatment not available at the clinic are referred to the appropriate tertiary dermatology department after discussion. Patients from the private sector are also referred. As the services and facilities of the clinic become known, patients are starting to self-refer. The referral patterns in mid-2012 are shown in Fig. 2. Down-referral from tertiary services has been slow, but is gradually improving, with many patients self-referring because of the convenience and facilities.

The clinic provides ablation facilities (Figs 3 and 4); therefore patients can be managed daily during acute flares of their disease with the help of nursing staff who have all been trained in topical medication use. Topical medication can be altered or adjusted in response to changes in the skin and ensures cost-effective appropriate topical care. These same services are available for those without adequate home facilities for self-treatment.

A supply of topical medication and dressings is available in the clinic, allowing nurses to initiate and alter patient treatment as needed when attending the day care treatment centre (Fig. 5). These are strictly monitored by the pharmacy that provides essential support to the unit. With the removal of extemporaneous mixtures essential to patient care from the provincial and national coding list, nurses show and educate patients in the preparation of mixtures. This daily mixing ensures that patients have sufficient quantities of topical preparations necessary for regular treatment over the prescription period.

Education and support for those discriminated against because of skin disease are integral to the service and are emphasised in dermatology

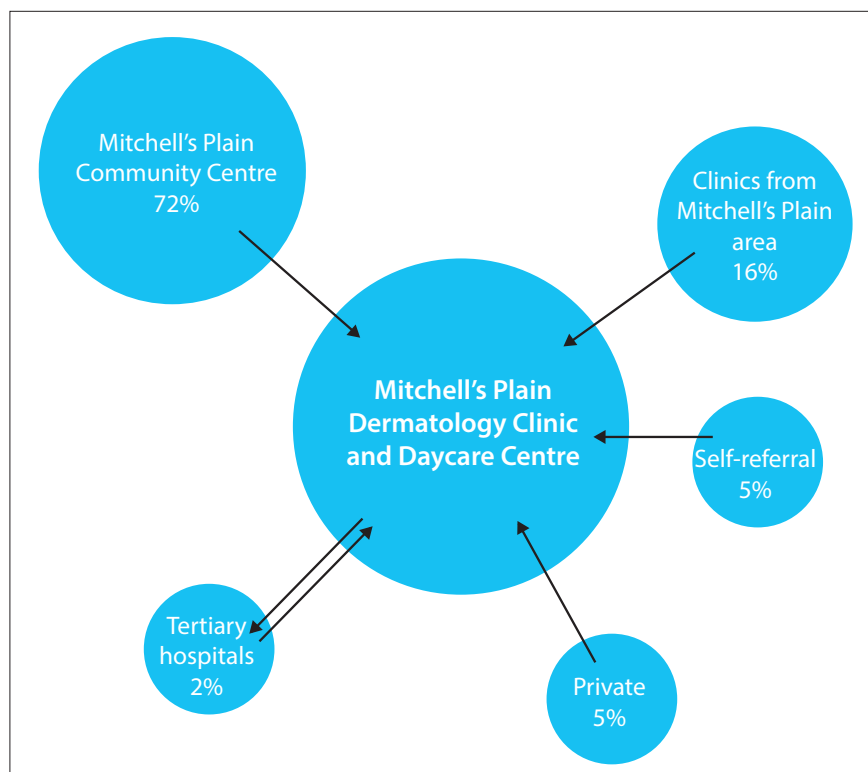


Fig. 2. The referral pathways for the Mitchell's Plain dermatology service from June to September 2012.

**Table 1. Skin conditions seen at Mitchell's Plain dermatology clinic from January 2012 to May 2013**

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May*	Total
Acne vulgaris	9	16	15	10	16	18	17	15	5	6	19	8	10	8	14	nd	8	194
Alopecia	5	4	4	3	5	5	2	5	5	4	11	1	0	4	13	nd	3	74
Atopic eczema	269	199	121	117	110	139	174	125	156	131	164	118	131	166	169	nd	93	2 382
Contact dermatitis	5	14	12	11	11	14	12	8	7	5	10	2	2	4	5	nd	5	127
Impetigo	1	14	8	5	3	3	1	1	0	0	2	0	5	6	0	nd	3	52
Keloid acne	0	1	1	0	1	2	1	12	0	2	1	0	0	0	0	nd	0	21
Molluscum	0	4	7	11	2	3	3	1	7	6	4	6	9	5	5	nd	6	79
Nappy rash	0	0	0	1	0	2	0	1	0	1	0	1	0	0	0	nd	0	6
Papular urticaria	1	5	0	6	4	3	2	2	1	5	0	2	0	5	0	nd	3	39
Psoriasis	9	23	11	15	15	18	9	12	10	11	16	17	16	11	14	nd	9	216
Pityriasis alba	0	1	9	0	0	7	8	17	14	15	8	12	0	1	6	nd	5	103
Tinea	23	11	19	11	16	26	27	19	18	28	23	7	32	35	34	nd	8	337
Tinea versicolor	7	1	0	1	0	2	8	3	0	0	0	0	3	9	6	nd	1	41
Ulcers	35	25	10	25	6	3	1	0	10	1	1	3	28	28	37	nd	34	247
Vitiligo	4	6	5	1	11	4	3	2	13	6	11	2	3	5	7	nd	4	87
Warts	0	0	2	4	0	1	1	3	1	13	4	1	2	2	0	nd	0	34
Total	368	324	224	221	200	250	269	226	247	234	274	180	241	289	310	nd	182*	4 039

\* Incomplete data.  
nd = no clinic data available.

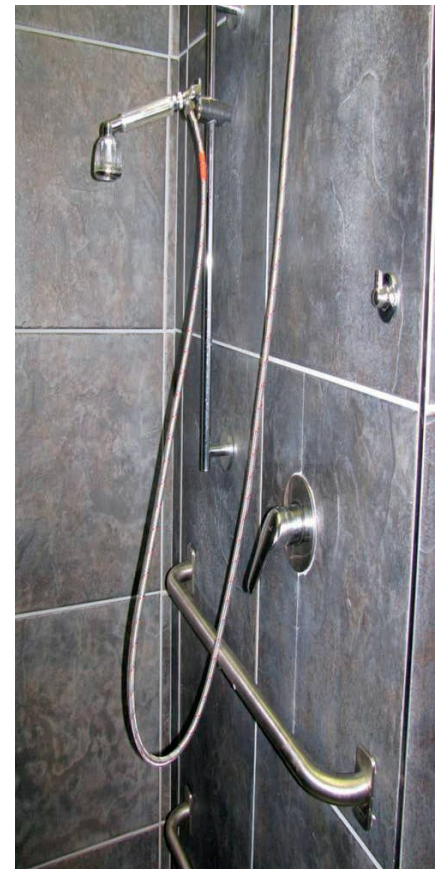


Fig. 3. Stainless steel shower and dark porcelain tiles in the shower cubicle of the day care treatment area. These prevent soiling and degradation of the facilities by topical therapies that stain fomites.



Fig. 4. Stainless steel basin and shower with surrounding dark porcelain tiles for hair washing in the day care treatment area. These prevent soiling and degradation of the facilities by topical therapies that stain fomites.

nurse training, which includes modules on wound care. Wound care facilities are provided at the clinic. A phototherapy unit has recently been donated to the centre, which will further reduce the need for local patients to travel to tertiary units.

Paediatric skin care services are provided at separate clinics and are structured to accommodate school attendance. Children attend this convenient service in increasing numbers and constitute 57% of clinic attendees. This has largely

occurred because children then do not have to miss school, travel expenses for two people at R80 have been eliminated from the monthly budget, and expertise and facilities are adequately duplicated to meet their needs.



Fig. 5. The locked cabinet for immediate patient care in the day care treatment area.

### Successes and challenges

There have been numerous strengths and successes in initiating and providing daily dermatology services at Mitchell's Plain. Appreciation from patients has made it all

worthwhile. More pragmatically, the clinic has seen a steady increase in the number of patients since its inception (Table 1).

Skin diseases seen are those expected at a primary care dermatology service and include infections and infestations. Interestingly, infections and infestations accounted for only 14% of cases from January 2012 to May 2013, suggesting that most of these are treated in general clinics or not at all. Chronic diseases such as atopic eczema (59%), other eczemas (6%), psoriasis (5%), chronic ulcers (5%), acne vulgaris (5%) and vitiligo (2%) are the main conditions seen, which are appropriate for this specialist service (Table 1). This reflects the increasing number of stable down-referral cases from tertiary hospitals and the fact that the conditions are chronic with intermittent flares or grumbling disease needing treatment for life.

Demographics of patients seen from June to September 2012 showed that 57% were children, 10% were less than 1 year of age, and 40% were between 1 and 10 years of age. An equal number of male (48%) and female (52%) children were seen. This is in contrast to adults and adolescents, where females (59%) outnumbered males (41%). Adolescent patients (10 - 21 years of age) constituted 20% of the patients seen, while the elderly (over 50 years of age) accounted for only 13% of those seen. Adults between the ages of 21 and 50 years made up the final 17% of clinic cases.

### The pharmacy

An excellent working relationship has developed with the pharmacy department. In the early days availability of topical medication was variable and unreliable. Many patients went home with unfilled scripts. With a dedicated dermatology service non-available medication became the exception rather than the rule. In other words, until skin care was 'owned' by a service or person, patients were not receiving therapy, resulting in a worsening of their condition and a return to tertiary level care. An audited supply of topical treatments is available in a locked cabinet in the treatment area for immediate use. Therefore, patients in need of urgent care can be treated and made comfortable before being sent to the pharmacy.

### Back-up and referral

Support for the staff running the service has been available via a teledermatology service

supported by the tertiary dermatology units and the registrar on call. This direct helpline service prevents unnecessary up-referrals while ensuring that those needing admission or immediate attention from a dermatologist are seen within 24 hours. A regular monthly outreach service by staff from the tertiary institutes supplements these referral paths and ensures that the nurses running the clinic receive regular and ongoing teaching.

### Relationship with general nursing staff

Diffusion of the knowledge acquired among fellow healthcare workers at the community centre has been central to the ethos of the clinic. The level of dermatology knowledge and skill among all staff has improved, in keeping with the need to up-skill those providing basic general services at primary level. The clinic has become a teaching site on the teaching platform for the community dermatology module of the Postgraduate Diploma in Dermatology Nursing.

A serious challenge to the service has been the gradual erosion of nurses working in the clinic. Initially there were four nursing staff appointed to the clinic, but this has been slowly reduced to two as the operational needs of the community health centre has meant that nurses who move to other clinics or study further are not replaced. This is a particular challenge because of the increased number of patients seeking help or being down-referred. It would be unfortunate if this service were to lapse, particularly since our data show that many children would be affected.

### Conclusions and recommendations

I achieved my objectives of establishing a dermatology clinic at the Mitchell's Plain Community Health Centre, which has grown from small beginnings in 2007 to a daily diagnostic and treatment service. Patient numbers have increased over this time and the number is expected to rise with increasing down-referrals from tertiary centres and increasing local needs. This clinic, and the country as a whole, needs more trained and skilled nurses within the field of dermatology. Dermatology training also has to be improved in the basic curricula of doctors and nurses.