

## REVIEW ARTICLE

# Psychodermatology in Clinical Practice: Main Principles

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**Psychodermatology is a newer and emerging subspecialty of dermatology, which bridges psychiatry, psychology, paediatrics and dermatology. It has become increasingly recognised that the best outcomes for patients with psychodermatological disease is via a multidisciplinary psychodermatology team. The exact configuration of the multidisciplinary team is, to some extent, determined by local expertise. In addition, there is a growing body of evidence that it is much more cost-effective to manage patients with psychodermatological disease in dedicated psychodermatology clinics. Even so, despite this evidence, and the demand from patients (and patient advocacy groups), the delivery and establishment of psychodermatology services is very sporadic globally. Clinical and academic expertise in psychodermatology is emerging in dermatology and other (often peer-reviewed) literature. Organisations such as the European Society for Dermatology and Psychiatry (ESDaP) champion clinical and academic advances in psychodermatology, whilst also enabling training of health care professionals in psychodermatology. Emiliano Panconesi, to whom this supplement is dedicated, was at the forefront of psychodermatology research and was a founding member of ESDaP. Key words: psychodermatology; multidisciplinary team; cost-effective.**

Accepted Feb 16, 2016; Epub ahead of print Jun 9, 2016

Acta Derm Venereol 2016; Suppl 217: 30–34.

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The skin is the largest organ of the body, the most visible and acts as our interface with the world. As such the skin has a major impact on personal perceptions and psychological well-being. Psychocutaneous medicine is the study of the complex interaction between psychiatry, psychology and dermatology.

In this emerging speciality, patients present with either: 1) a primary psychiatric condition which presents to dermatologists (e.g. dermatitis artefacta); 2) a primary dermatological disorder with secondary psychosocial comorbidities (e.g. acne with body dysmorphic disorder); 3) those who require psychosocial support with their skin disease (e.g. rosacea and low

self-esteem); or 4) those who have a skin condition secondary to their psychotropic medication (e.g. lithium may be associated with psoriasis), or those who develop psychiatric disease following initiation of medication for dermatological disease (e.g. isotretinoin may be associated with suicidal ideation) (1).

The most common conditions seen in psychodermatology clinics include patients with delusional infestations, dermatitis artefacta, trichotillomania, dysaesthesias (such as peno-scrotodynia, vulvodinia), body dysmorphic disorder, social anxiety disorder, depression and suicidal ideation. Synonyms for psychodermatology include: Psychocutaneous medicine; Mind and skin (or skin and mind) medicine; Sensory-neuronal dermatology; Psycho-somatic dermatology (or medicine); and Cutaneo-somatic dermatology (or medicine).

Most dermatologists refer to this subspecialty of dermatology as psychodermatology or psycho-cutaneous medicine. There is a debate about whether naming the speciality ‘psychodermatology’ or that the very prefix ‘psycho’ is stigmatising for patients. Whilst most dermatologists are respectful of maximising patient engagement and minimising patient stigmatisation, most will hold to the term ‘psychodermatology’ or ‘psycho-cutaneous medicine’ as that clearly and uniformly delineates the nature of the speciality.

## THE NEED OF (RATHER THAN DESIRE FOR, OR WANT OF) PSYCHODERMATOLOGY CLINICS

A recent British Association of Dermatologists’ working party report (2) published the results of a nationwide survey by dermatologists, highlighting the urgent need for (at least) regional psychodermatology services. Results found that 3% of dermatology patients have a primary psychiatric disorder, 8% of dermatology patients present with worsening psychiatric problems due to concomitant skin disorders, 14% of dermatology patients have a psychological condition exacerbating their skin disease and 17% of dermatology patients need psychological support to help with psychological distress secondary to a skin condition. Overwhelmingly 85% of dermatology patients have indicated that the psychological aspects of their skin disease are a major component of their illness.

A population-based cohort looking at depression, anxiety and suicidality in 149,998 psoriasis patients and 766,950 patients without psoriasis showed an increased risk of all these diagnoses amongst those patients with psoriasis (3). The timing of flares of psoriasis to emotional stress indicates a relationship between the nervous and immune systems. For patients who live with cutaneous diseases such as psoriasis, psychological stress is known to act via the hypothalamic-pituitary-adrenal axes causing an increase in inflammatory mediators, activation of the sympathetic nervous system causing a dysfunctional adrenergic response and distribution of leucocytes, stimulation of neuronal growth and changes in neuropeptide and neurotrophin expression (4).

Patients with chronic inflammatory diseases such as psoriasis process facial expressions such as disgust which differs for age-matched controls. In this study functional magnetic resonance imaging (fMRI) showed smaller signal responses in the bilateral insular cortex in those with psoriasis and this was not confined to those with the most treatment-resistant psoriasis. It is theorised that patients have adapted this coping mechanism to protect themselves from disgusted facial expressions of others, related to their psoriasis (5). Having an inflammatory skin disorder such as atopic dermatitis or psoriasis in childhood with high systemic levels of IL-6 is associated with an increased risk of developing depression and psychosis as a young adult (6). A recent systematic review of 14 trials looking at the use of non-steroidal anti-inflammatory drugs and cytokine inhibitors showed that anti-inflammatory treatment reduces depressive symptoms compared to placebo (7). Therefore, it is not surprising that treatment of an inflammatory disorder such as psoriasis with an anti-TNF alpha blocker such as adalimumab, positively affects the psychosocial aspects and quality of life of a patient (8).

#### THE PSYCHODERMATOLOGY MULTIDISCIPLINARY TEAM

In a general dermatology clinic, an untrained dermatologist is usually unequipped to manage patients with psychocutaneous disease without a psychodermatology team. The psychodermatology multi-disciplinary team (pMDT) has been identified as a successful (and cost-effective) way to manage this group of patients (9). The pMDT includes a dermatologist, a psychiatrist and/or a psychologist, with additional support from dermatology specialist nurses, child and adolescent mental health specialists, paediatricians, geriatricians and older age psychiatrists, social workers, trichologists, primary care physicians, child and/or vulnerable adult protection teams, patient advocacy and support groups.

#### PSYCHODERMATOLOGY CONSULTATIONS

Patients who present to a psychodermatology clinic usually believe they have a primary skin problem (though this is not always the case). A clinician must approach the patient in the same way as they approach all patients they see in a dermatology clinic. Active listening is crucial with an in-depth comprehensive medical history (including substance misuse) and a full examination of the skin, ensuring a willingness to “lay on hands”. By performing a detailed skin examination patients are reassured that their condition is being considered seriously, which will enhance engagement of the patient with the clinician. Physical findings can include excoriation/excessive scratching (seen in skin picking disorder, delusional infestations), linear or geometric erosions/burns (seen in factitious lesions or signs of abuse) and a general dishevelled appearance (seen in patients with poor self care) (1).

During the discussion with the patient the concept of skin disease having an impact on a person’s psychosocial well-being can be introduced. This then gently establishes the acceptability of carrying out a more detailed psychiatric assessment and structured management plan. There are 3 types of psychiatric or psychosocial risk that dermatologists should be alert to include: (i) Risk of suicide or other self injury; (ii) Risk to others, including clinicians staff and family, and (iii) Risk of child or vulnerable adult abuse or neglect.

For most dermatologists assessing suicide risk can be uncomfortable as it is not a routine part of their clinical practice, however it is vital to practice these skills in order to manage and prioritise those at risk. Screening for suicide risk should include: (i) Assessing the emotional impact of the patient’s dermatologic condition. (ii) Directly asking about suicide and other psychiatric issues. (iii) Clinically examine any reassurances from patients with substantial risk factors. (iv) Knowing that major risk factors are rarely counter-balanced by the so-called presence of “protective factors.” Protective factors include supportive measures that neutralise patient’s suicidal thoughts and behaviours to reduce the likelihood of suicide. (v) Understanding the concept of “suicide attempt.

Table I. *The mental state examination (1)*

• Appearance and behaviour
• Speech
• Mood; subjective and objective
• Thought: form and content
• Perception (e.g. auditory, visual, olfactory, hallucinations).
• Cognitive assessment, including orientation, attention and concentration, registration, and short term memory recent memory, remote memory, intelligence, abstraction
• Insight

Dermatologists should aim to cover all aspects of a psychocutaneous history and perform a mental state examination for each patient. This may take several clinic visits (1). Patients must be re-assured that discussions are confidential and that only when necessary do we share information with other health-care providers (Table I).

Engaging patients with psychocutaneous disease is crucial. It is also important to fully involve the primary care physician so that everyone in the pMDT is fully informed in order to reinforce treatment choices and instil confidence in the patient.

The extent of skin disease does not necessarily relate to the extent of psychosocial co-morbidities. A patient's quality of life is increasingly understood as essential to a clinician's management of patients with dermatological disease. Health-related quality of life is therefore the patient's assessment of the effect of their skin disease and treatment on their physical, psychological, social position and overall well-being. Quality of life tools can be: adult dermatology specific (e.g. the Dermatology Life Quality Index, DLQI) (10) or child dermatology specific (e.g. The Children's Dermatology Life Quality Index CDLQI) (11), psychiatry or psychology specific (eg. the Person Centred Dermatology Self-Care Index, PeDeSI (12)) or disease specific (eg. Psoriasis Disability Index) (13). Increasingly it is recognised that quality of life changes are not confined to the patient and this is recognised through the use of the family specific Dermatitis Family Impact (DFI) questionnaire (14).

Patients with a primary psychiatric disorder may not have insight and therefore will usually not engage with mental health specialities without the engagement of a dermatologist. Therefore there is a definite need for dermatology departments to have a specialist trained in psychocutaneous medicine for this population of patients. The cohort of patients with psychosocial impairment due to skin disease also need specialist multi-disciplinary team input, often requiring involvement from psychology and psychiatric colleagues. By providing psychological support within a dermatology department this care is "normalised" within a "normal" healthcare setting. There is also mounting evidence that an early identification of patients with a primary psychiatric condition, by primary care physicians and/or dermatologists is a cost effective way of utilising resources, by direct referral to specialist psychodermatology services. The savings are largely due to the reduction in extensive and often unnecessary investigations, specialist referrals and 'doctor shopping' (15). A study looking at the cost-effectiveness of managing patients with dermatitis artefacta in a dedicated psychodermatology clinic compared to costs incurred prior to referral found on average a saving of £6,853 per patient per year (16). Despite this currently only 8 trusts in the United Kingdom have a lead consultant with an interest in psychodermatology (15, 17).

## PSYCHODERMATOLOGY CLINIC MODELS

There are different working models in which a psychodermatology service can be implemented including: (i) A dermatologist who refers a patient to a psychiatrist or psychologist who is in an adjacent room. (ii) A dermatologist who refers a patient to a psychiatrist or psychologist who is in a remote clinic. (iii) A dermatologist who has a psychiatrist sitting in clinic at the same time and a patient is seen by both specialists concurrently (1, 15).

Factors influencing the type of model delivered include finance and keenness of colleagues. Practically to set up a service we recommend the following:

- *Financial investment*: It may be mistakenly perceived by hospital managers to be a costly clinic as can involve more than one health care professional and consultation times per patient need to be longer. Evidence is emerging of the cost-effectiveness of running these clinics as there is often a hidden layer of resources used prior to them been successfully treated in psychodermatology clinics.
- *Psychodermatology multi-disciplinary team*: Access to training is essential to ensure expertise in this area is gained and disseminated for the training of colleagues.
- *Consultation times*: Due to the nature of the complexity of the conditions seen in these clinics 45 min is often required to see new referrals and 20 min for follow-up patients. Psychology colleagues often require hour appointments to see patients.
- *Multi-disciplinary team discussions* are vital to co-ordinating care for these patients between health professionals. Time needs to be set aside for this.
- *Facilities*: Consultation and counselling rooms are well suited for the dermatology outpatient setting. Ideally a quiet room which is not disturbed is necessary for psychological interventions. Joint healthcare clinics need to be in a room big enough for clinicians and the patient and next of kin (1, 2).

Psychological interventions include basic therapies such as psychoeducation, self-help treatments, relaxation, social skills training and more complex therapies such as habit reversal and cognitive behavioural therapy (CBT) (1). Habit reversal therapy initially draws the patient's attention to a habit they may not be aware of. Therapy then focuses on developing alternative strategies. Treatment in CBT is centred around challenging negative automatic thoughts and developing alternative responses. CBT has been shown to be a tool that can be used for conditions encountered in psychodermatology clinics, such as body dysmorphic disorder (18).

## TRAINING IN PSYCHODERMATOLOGY

Training in, and updating, clinical psychodermatology practice is crucial. In the UK there has been clear deli-

neation of the need for trainee dermatologists to train in psychodermatology, but, until recently, very little by way of formalised training. Training has been, until recently, largely from case-based discussions with general dermatologists together with experience from undergraduate psychiatry training. Because psychodermatology includes expertise from dermatology, psychiatry and psychology, basic training in all these disciplines is important in fully training a dermatologist. In addition, advanced training schools for dermatologists with a special interest in psychodermatology are being developed across Europe. Current training available for those interested in psychodermatology include:

- The annual UK Specialist Registrar and Newer Consultant Psychodermatology training course. (anthony.bewley@bartshealth.nhs.uk).
- Courses by the British Dermatological Nursing Group (BDNG). (www.bdng.org.uk/about/).
- The European Society for Dermatology and Psychiatry (ESDaP). (www.eadv.org).
- The mind and the skin course at the University of Hertfordshire. (m.flanagan@herts.ac.uk).
- There is also an annual psychodermatology UK meeting. (www.bad.org.uk/Events) (2).

## PSYCHOPHARMACOLOGY

Psychopharmacology may relate to psychodermatology in the following ways. It may be necessary to prescribe psychiatric medication for psychodermatological conditions, or medications used to treat dermatological conditions may have psychiatric consequences. Finally medications used in for psychiatric disease may lead to dermatological consequences (Tables II and III).

Table II. *A few examples of medications used in both psychiatric and dermatological practice and their possible dermatological and psychiatric consequences, respectively*

Patients with skin condition secondary to their psychotropic medication (both adults and children):
<ul style="list-style-type: none"> <li>• <i>Lithium</i> can cause hair loss, folliculitis, acne, nail pigmentation, precipitation or exacerbation of psoriasis</li> <li>• <i>Lamotrigine</i> can cause Stevens-Johnson syndrome, toxic epidermal necrolysis, angioedema</li> <li>• <i>Tricyclic antidepressants</i> can cause photosensitivity</li> <li>• <i>Antipsychotics</i> can cause photosensitivity, urticarial, maculopapular rash, petechiae, oedema</li> </ul>
Medications for skin disease causing psychiatric consequences (both adults and children):
<ul style="list-style-type: none"> <li>• <i>Antihistamines</i> can cause depression, extrapyramidal symptoms, confusion</li> <li>• <i>Antimalarials such as hydroxychloroquine</i> can cause affective disorders and psychosis</li> <li>• <i>Dapsone</i> can cause psychotic disorders</li> <li>• <i>Dianette</i> used in acne can cause depression and anxiety</li> <li>• <i>Isotretinoin</i> can cause affective disorders including depression and suicidal ideation</li> </ul>

Table III. *Specific areas within psychodermatology*

Primary psychiatric conditions that present with skin disease (both adults and children):
<ul style="list-style-type: none"> <li>• Delusional infestation</li> <li>• Dermatitis artefacta</li> <li>• Trichotillomania</li> <li>• Body dysmorphic disorder</li> <li>• Neurotic excoriation</li> <li>• Anxiety and depression in dermatology</li> </ul>
A primary dermatological condition with secondary psychosocial comorbidities or who require psychological support with their skin disease (both adults and children):
<ul style="list-style-type: none"> <li>• Inflammatory skin conditions, e.g. psoriasis, atopic dermatitis, acne</li> <li>• Hair disorders, e.g. alopecia areata, male pattern balding, female pattern balding and chemotherapy-related hair loss</li> <li>• Psychodermato-oncology (looking at psychosocial, emotional and behavioural factors associated with a diagnosis of a skin cancer and its treatment)</li> <li>• Anxiety and depression in dermatology</li> </ul>

Clinicians need to become familiar and comfortable with prescribing anti-depressants and antipsychotics, as these two classes of drugs are used to treat many of the conditions seen in psychodermatology clinics (1).

*Folie a deux/en famille* is a well-documented phenomenon seen in patients with delusional infestations where the belief is shared with family members or friends. A recent case published describe the case of a mother with delusional infestation whose children shared her belief and explored the child protection issues associated with it (19).

## RESEARCH

Happily there is a growing body of research in psychodermatology. Until recently research in psychodermatology has largely been observational. But there are centres who are actively researching the basic science of psychodermatological disease (5), as well as clinical research. There is only one randomised controlled clinical trial on delusional infestations in psychodermatology, and there are a host of reasons why such research is difficult. But Cochrane reviews of such research are beginning to emerge (20). Perhaps the focus of future research should centre on the overall management and treatment of psychodermatology patients and establishing national guidelines (1).

Data is required to inform future provision of psychological services for patients who are currently under-supported as well as providing evidence for the efficacy of interventions not only for patients with psoriasis shown by Moon et al. (21) but would also be helpful for the holistic management of our patients.

## CONCLUSION

Psychodermatology is an emerging, exciting field within dermatology. There is both a need for research

and specialists within this field in order for us to better manage our patients.

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