

REVIEW ARTICLE

Psychodermatology: Basics Concepts

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Psychodermatology is a relatively new field of medicine. It encompasses the interaction of mind and skin. The role of psychoneuroimmunology in the causation of psychocutaneous disorders and psychosocial aspects of skin disease have gained momentum lately. The treatment of psychodermatological disorders focus on improving function, reducing physical distress, diagnosing and treating depression and anxiety associated with skin disease, managing social isolation and improving self esteem of the patient. Both pharmacological and psychological interventions are used in treating psychocutaneous disorders. The interest in Psychodermatology around the world is increasing and there are several organizations holding their regular meetings. Key words: psychocutaneous disorders; skin & psyche; dermatopsychiatry; behavioral dermatology.

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Psychodermatology is a field that results from the merging of two important medical specialties, psychiatry and dermatology (1, 2) (Fig. 1). It addresses the complex

interaction between the skin and mind. Although the existence of Psychodermatology is old, the field has become popular only in the past 20 years (1, 3). Since ancient times, philosophers reported the existence of Psychocutaneous diseases. Hippocrates (460–377 BC), in his writings, mentioned the effects of stress on skin. He cited cases of people who tore their hair out in response to emotional stress (3). While Aristotle (384–322 BC) suggested that the mind and body were two complementary entities and not separate, as suggested before (3).

The skin and the nervous system share the same embryogenic origin. Both are originated from the same germ layer. The ectodermis differentiates to form the nervous system (brain, spine and peripheral nerves), tooth enamel and epidermis. It also forms the sweat glands, hair and nails (4).

There is also an interplay between the immune and neuroendocrine systems and the skin. The skin transmits intrinsic conditions to the external world after sensing and integrating environmental cues (5). The skin serves as a protective interface between the internal organs and the external environment. It is considered an active immune organ and functions as a physical barrier to combat pathogens, physical stress and diverse types of toxins. Their immune responses involve immune-competent cells and soluble biologic response modifiers including cytokines. Skin cells also produce neurotransmitters and neuropeptides, hormones and

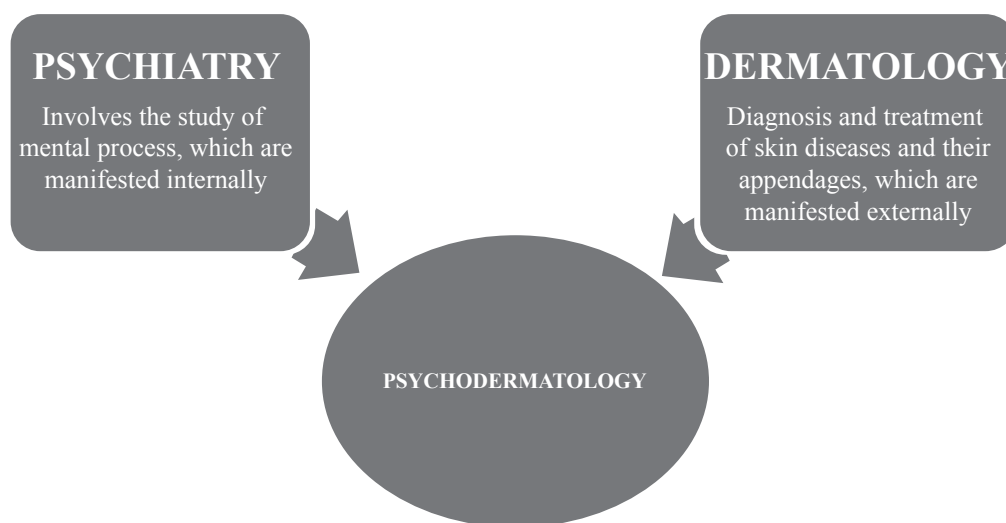


Fig. 1. Psychodermatology: A field that results from the merging of two important medical specialties: psychiatry and dermatology.

corresponding functional receptors (6). The epidermis, dermal and adnexal cells produce neurotransmitters and hormones. They can also be released from cutaneous nervous endings. Hair follicles, eccrine, apocrine and sebaceous glands have exocrine activities that serve to strengthen epidermal barrier, in the defense against external pathogens and regulate thermoregulation (6, 7).

CLASSIFICATION OF PSYCHODERMATOLOGICAL DISEASES

There are several types of classification of psychodermatological diseases. The most commonly used is presented in the Table I.

TREATMENT APPROACHES

The treatment approaches for psychodermatological disorders starts with a good doctor–patient relationship to develop empathy and increase patient adherence and satisfaction (9). A multidisciplinary team, including dermatologists, psychiatrists, psychologists and social services are also very important for a holistic treatment (10). Table II presents some goals that should be targeted when treating a patient with a psychodermatological disorder.

Both non-pharmacological and pharmacological treatments have been successfully used to treat psychocutaneous disorders. These treatments can be used alone or in combination, depending on the medical evaluation and needs of each patient. Psychotherapy, cognitive

Table II. Goals that should be targeted when treating a patient with a psychodermatological disorder (10)

Improve functioning
Detect and improve sleep disturbances
Reduce physical distress
Detect and treat psychiatric symptoms such as depression and anxiety
Manage social isolation/withdrawal
Improve self-esteem

behavioural therapy, hypnosis, stress management techniques, relaxation training, biofeedback and guided imagery are some examples of nonpharmacological approaches that have been successfully employed.

Pharmacologically treatments include antidepressants, anxiolytics, antipsychotics, antihistamines, and oral corticosteroids, topical medications among others. The choice of a psychopharmacological treatment is based on the nature of the psychopathology that can be compulsion, psychosis, anxiety or depression. The most commonly used are selective serotonin reuptake inhibitors (SSRIs), Serotonin Norepinephrine reuptake inhibitors (SNRIs), Mood stabilizers and antipsychotics. Antipsychotics can be used to augment the efficacy of other medication effects or as monotherapy in patients in certain conditions such as delusions of parasitosis and trichotillomania. Other commonly used psychiatric medications include pimozide to treat delusion of parasitosis, gabapentin to treat postherpetic neuralgia, naltrexone to treat pruritus and lamotrigine and topiramate to treat skin picking. Although there is limited evidence and few controlled trials have been conducted with above-mentioned pharmacological agents with variable results.

Table I. Classification of Psychodermatological disorders (8)

Classification	Definition	Examples
Psychophysiological disorders	Skin diseases are precipitated or exacerbated by psychological stress. Patients experience a clear and chronological association between stress and exacerbation	<ul style="list-style-type: none"> • Acne • Alopecia areata • Atopic dermatitis • Psoriasis • Psychogenic purpura • Rosacea • Seborrheic dermatitis • Urticaria (hives)
Psychiatric disorders with dermatological symptoms	There is no skin condition and everything seen on the skin is self-inflicted. These disorders are always associated with underlying psychopathology and are known as stereotypes of psychodermatological diseases	<ul style="list-style-type: none"> • Body dysmorphic disorder • Delusions of parasitosis • Eating Disorders • Factitial dermatitis • Neurotic excoriations • Obsessive Compulsive Disorders • Trichotillomania
Dermatological disorders with psychiatric symptoms	Emotional problems are more prominent as a result of having skin disease, and the psychological consequences are more severe than the physical symptoms	<ul style="list-style-type: none"> • Alopecia areata • Albinism • Chronic eczema • Hemangiomas • Ichthyosis • Psoriasis • Rhinophyma • Vitiligo
Miscellaneous	Several other disorders have been described and grouped under miscellaneous conditions. The medication-related adverse effects of both psychiatric and dermatological medications have also been included in the broad classification of psychodermatological disorders	<ul style="list-style-type: none"> • Psychogenic Purpura Syndrome • Cutaneous Sensory Syndrome

Psychodermatology is gaining momentum and the interest in the mind-skin connection is increasing. The role of psychoneuroimmunology in the causation of psychodermatological disorders is the hot topic of research in psychodermatology nowadays.

PSYCHODERMATOLOGY AROUND THE WORLD

Psychodermatology is a subspecialty that is becoming more and more known around the world. Although it is well established as a subspecialty of dermatology and psychiatry, it has been increasingly studied by health professionals worldwide over the past two decades. The understanding of the existence of a cycle, whereby psychological disturbances cause skin diseases and skin diseases cause psychological disorders, is the basis for

good dermatologic practice. There are few organizations in charge of the clinical and academic excellence of psychodermatology (11). Fig. 2. presents 4 important organizations of Psychodermatology around the world.

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	Association for Psychoneurocutaneous Medicine of North America	www.psychodermatology.us
	The European Society for Dermatology and Psychiatry	www.psychodermatology.net
	Psychodermatology UK	www.psychodermatology.co.uk
	Japanese Society of Psychosomatic Dermatology	www.jpds-ac.org

Fig. 2. Psychodermatology organizations around the world.