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REVIEW ARTICLE

PSYCHO DERMATOLOGY: EMOTIONAL PROBLEM AND ITS PSYCHOSOCIAL MANAGEMENT

***Anupriya Singh and Gopal Jee, S.**

Department of Psychology, DAV PG College (BHU), Varanasi

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ABSTRACT

A relationship between psychological factors and skin diseases has long been hypothesized. Psychodermatology addresses the interaction between the mind and the skin. Today, we know that it is essential to consider biopsychosocial approaches to treatment, involving general practitioners, psychiatrists, dermatologists and psychologists. However, Psychodermatology is a relatively new discipline, and the body of literature addressing it is still scarce. Chronic skin disease involves life adaptation which, in most cases, results in lowers life quality, influencing patient's social life and making the treatment more difficult. Noticeability of skin lesions exposes the patient to negative society reactions and stigmatization because of disfigurement, resulting in patient's loss of self-confidence. Factors like severe anxiety, emotional instability and loss of self –confidence reduce the quality of life and working abilities in such patients. Psychosomatic components play a significant role in a number of inflammatory, immune mediated and behavioral skin disorders (Panconesi, 2005). In one study, 10% of patients at a dermatology clinic had psychosomatic disorders and another 15% had adjustment disorders (Seyhan, Aki, Karincaoglu, & Ozcan, 2006). Reducing stress and emotions and behavioral habits that damage skin, hair, or nails can enhance response to treatment when used in conjunction with other appropriate treatments for the specific skin disorders. Stress may be measured with subjective units of distress on a 0–10 scale and may be reduced with heart rate variability biofeedback, cognitive-behavioral methods, hypnosis and self-hypnosis, meditation, relaxation training, or yoga (Ehlers, Stangler, & Gieler, 2005; Hughes, Brown, Lawlis, & Fulton, 1983).

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INTRODUCTION

The skin and central nervous system have common embryological origins; therefore, they also have common neuromodulators, peptides and biochemical systems of internal information. For this reason, the skin is an organ that is strongly reactive to emotion. Because the skin is the most accessible part of our body, it is not uncommon for many people to manifest aggressive impulses, anxiety, or self destructive behavior through the skin, provoking dermatological symptoms. On the other hand, people with skin diseases that compromise their self-image may feel depressed, ashamed or anxious as a result of their illness. Psychodermatology is the result of the merger of these two seemingly unrelated disciplines. Dermatology pertains to the treatment of diseases of the skin, which are manifested externally. Psychology and Psychiatry pertain to the examination of mental processes, which are manifested internally. Thus, these different approaches regarding the relationship between the psychic and the somatic are variations on a theme: the relationship between behavior, thought, and emotion and the biological body that sustains them. Another important consideration is the link between inflammation and depression when depression is considered as a continuous dimensional variable rather than a categorical entity, as this allows one to take into consideration moderate and subclinical levels of depressed mood. Now a day, we understand that Psychodermatology is a merger between Dermatology and Psychiatry that deals with the study of the influence of psychosocial stress in the chronicity of skin illness (Linthorst Homan *et al*., 2009; Linthorst Homan *et al*., 2008). Psychodermatology also analyses existing psychiatric comorbidities in many dermatologic conditions and the role of adjuvant treatment, whether it be psychopharmacological, psychotherapeutic or social (Cossidente *et al*., 1984; Poot *et al*., 2007). However, clarifying this definition has not been easy. It would not have been possible without the dedication and effort of many health professionals. From its beginnings, in which there was hardly any knowledge about Psychodermatology, this discipline has now turned into an exciting field of study and source of support for patients with

****Corresponding author: Anupriya Singh,***
Department of Psychology, DAV PG College (BHU), Varanasi

skin problems. Dermatologists, psychiatrists and psychologists, should create instruments to measure the incidence of Stress, depression and skin disease. Skin diseases such as psoriasis can profoundly influence a patient's self-image, self-esteem, and sense of well-being. Psoriasis is a multifactorial inflammatory condition with a disease burden that extends beyond the physical symptoms experienced by patients. Psoriasis affects all aspects of quality of life, including physical, psychological, social, sexual, and occupational elements. Data suggest that social stigmatization, high stress levels, physical limitations, depression, employment problems and other psychosocial co-morbidities experienced by patients with psoriasis are not always proportional to, or predicted by, other measurements of disease severity such as body surface area involvement or plaque severity (Kimball *et al*., 1983). The relation between psychological factors and psychiatric disorders in patients with skin diseases was discussed by researchers at different stages of the evolutionary process of building the Psychodermatology as a science with its own identity. The one hand psychological factors (stress, negative emotions) can influence the generation and aggravation of skin disorders (urticaria, atopic dermatitis, vitiligo), on the other hand psychological disorders can result in some skin diseases (psoriasis, atopic dermatitis). In the majority of cases the quality of life is poorly estimated by patients with skin problems. We can say that Psychodermatology has a long history but a short past, which means that we can trace its history from the earliest texts related to skin disease with mental states. However, we cannot refer to psychodermatology as a discipline until the mid-twentieth century. This discipline, despite its youth, has an interdisciplinary character and, indeed, was built and continues to be built through the efforts of many professionals from different areas of medicine (Schwab, 1985). The psychosocial effect of skin diseases is considerable and unappreciated. Although skin conditions are usually not life-threatening, because of their visibility they can be "life-ruining." Persons with disfigurement frequently feel psychologically and socially devastated as a result. Moreover, persons with skin disorders have trouble getting jobs in which appearance is important (Ginsburg & Link, 1993).It is also well documented that persons with visible disfigurement face discrimination, especially if the condition is perceived to be contagious (Love *et al*., 1987). There are certain findings which explain high co-morbidity of skin and psychiatric disorders:

- Chronic skin disease involves life adaptation which, in most cases, results in lower life quality, influencing patient's social life and making the treatment more difficult
- Noticeability of skin lesions exposes the patient to negative society reactions and stigmatization because of disfigurement, resulting in patient's loss of self-confidence
- Factors like severe anxiety, emotional instability and loss of self –confidence reduce the quality of life and working abilities in such patients.

Assessment of the impact of skin disease on patients' lives revealed that 29% of cases had symptoms of depression and 61% had symptoms of anxiety and felt that they had a lack of spontaneity. Forty percent of cases felt that their social lives were impaired due to the skin disease and 64% indicated that they had work-related problems due to the skin disease (Jowett & Ryan, 1985). The most common findings on assessment of patients with dermatologic disease using psychiatric rating scales are high scores on depression and anxiety (Chaudhury & Das, 1998a, 1998b). The skin diseases most frequently implicated with co-morbid psychiatric diagnoses are eczema, psoriasis and acne vulgaris (Barankin & Dekoven, 2002).

Alexithymia is a personality construct characterized by the sub-clinical inability to identify and describe emotions in the self (Sifneos, 1973). The core characteristics of alexithymia are marked dysfunction in emotional awareness, social attachment, and interpersonal relating (Feldman-Hall *et al*.,). Furthermore, individuals with alexithymia have difficulty in distinguishing and appreciating the emotions of others, which is thought to lead to unempathic and ineffective emotional responding (Feldman-Hall *et al*.). Alexithymia is prevalent in approximately 10% of the general population and is known to be comorbid with a number of psychiatric conditions (Taylor *et al*., 1999). Difficulty identifying feelings and distinguishing between feelings and the bodily sensations of emotional arousal

- Difficulty describing feelings to other people
- Constricted imaginal processes, as evidenced by a scarcity of fantasies
- A stimulus-bound, externally oriented cognitive style.

In studies of the general population the degree of alexithymia was found to be influenced by age, but not by gender; the rates of alexithymia in healthy controls have been found at: 8.3%; 4.7%; 8.9%; and 7%. Thus, several studies have reported that the prevalence rate of alexithymia is less than 10% (Fukunishi *et al*., 1999). A less common finding suggests that there may be a higher prevalence of alexithymia amongst males than females, which may be accounted for by difficulties some males have with "describing feelings", but not by difficulties in "identifying feelings" in which males and females show similar abilities (Salminen *et al*., 1999). Preliminary data show that alexithymia is associated with alopecia areata, psoriasis, atopic dermatitis, vitiligo and chronic urticaria. Besides treating psychological problems such as anxiety and depression, dermatologists should also be aware of alexithymia and its possible association with an underlying dermatologic disease (Chaudhury and Das, 1998a; Willemsen *et al*., 2008). Acne Skin conditions, such as acne, are sometimes thought of as insignificant in comparison with diseases of other organ systems. Physician's assumptions about the effects of a skin condition are often inaccurate. The psychological effect of acne is unique for each patient. Patients should be asked how much their acne bothers them, regardless of how severe it appears to physicians. Acne's effect on psychosocial and emotional problems, however, is comparable to that of arthritis, back pain, diabetes, epilepsy, and disabling asthma (Mallon *et al*., 1999). Acne vulgaris often flares with stress and premenstrually. With worsening of the acne, many individuals get more stressed, setting up a vicious cycle (Shenefelt, 2010). Acne has a demonstrable association with depression and anxiety; it affects personality, emotions, self-image and

esteem, less satisfaction with general appearance, feelings of social isolation, social impairment and lower quality of life (Barankin & Dekoven, 2002; Mallon *et al*., 1999). Its substantial influence is likely related to its typical appearance on the face, and would help explain the increased unemployment rate of adults with acne. Because the face is so important to body image, young men with severe scarring acne are at particular risk of depression and suicide (Cotterill & Cunliffe, 1997). Acne appears to be an independent risk factor for suicidal ideation, especially in boys (Misery, 2011). Poor self-concept, perfectionist and compulsive personality traits, correlated more strongly with self-excoriative behavior than the dermatologic indices of acne severity, suggesting that psychological factors, independent of acne severity, play an important role in the perpetuation of the self-excoriative behavior exhibited by some women with acne (Gupta *et al*., 1996). Much of the disability caused by acne can be reduced with appropriate medical treatment. Interventions, such as isotretinoin, that minimize or prevent scarring and reduce duration of the condition have the most pronounced psychosocial benefit (Misery *et al*., 2012). Stress reduction techniques like relaxation training, biofeedback, meditation, or self-hypnosis may be helpful (Shenefelt, 2010). Psoriasis has a substantial effect on patients' lives and can greatly increase the risk of suicide. Patients are often most troubled by the itching and scratching, bleeding, unsightly physical appearance, and noticeable flakes. The degree of pruritus in patients with psoriasis and AD is strongly correlated to depressive psychopathology. Both physical and mental functioning are reduced in patients with psoriasis comparable to that in arthritis, cancer, depression, and heart disease patients (Rapp *et al*, 1999). In a study of 369 patients with psoriasis, 35% reported that their condition affected their careers; 20% reported that they were substantially impaired in performing their work (Finlay & Coles, 1995).Quality of life may be severely affected by the chronicity and visibility of psoriasis as well as by the need for lifelong treatment. Five dimensions of the stigma associated with psoriasis have been identified:

(1) Anticipation of rejection
(2) Feelings of being flawed
(3) Sensitivity to the attitudes of society
(4) Guilt and shame and
(5) Secretiveness (Ginsburg & Link, 1989)

Depressive symptoms and suicidal ideation is frequently associated in psoriasis (Schmitt & Ford, 2007; Esposito, 2006).Many have feelings of physical and sexual unattractiveness as well as helplessness, anger, and frustration. Shame or embarrassment with resultant secretiveness and avoidance of common social activities, like sports and swimming is not unusual. The disease is clearly associated with increased alcohol consumption and smoking (Herron *et al*., 2005). Even though the emotional effects and functional impact of the disease are not necessarily proportionate to the clinical severity of psoriasis (Russo *et al*., 2004), the frequency of psychiatric disturbance decreases with improvement in the clinical severity and symptoms of psoriasis (Sampogna *et al*., 2007). The effect of the disease decreases with increasing age, probably a function of both disease duration and a more settled lifestyle. Women appear to report greater impairment of quality of life, while men report greater work-related stresses. While the severity of the condition can influence psychosocial wellbeing, it is important to appreciate that people perceive their conditions differently, such that those with only mild psoriasis can in fact be more bothered than those with extensive, severe disease. A questionnaire based study on 300 patients with moderate to severe chronic plaque psoriasis from 17 dermatology clinics throughout Italy revealed that psoriasis elicited anger, annoyance, and irritation in approximately 50% of the patients, whilst 38% of patients were unable to describe their emotional state. Aspects of life that were limited by psoriasis included clothing (57%), social interactions (43%), and personal hygiene (31%). The disease was often seen by patients as incomprehensible, incurable, and uncontrollable. More than half of the patients stressed their need to be listened to by the treating physician, and their wish that the physician should use simple language and should improve their psychological skills and interpersonal communication techniques. Dermatologists need to convey to patients with psoriasis the feeling of 'understanding the disease,' of hope about its curability, and the 'perception of control.' These elements should be taken into account when treating patients and whenever educational interventions are planned (Linder *et al*., 2009). Proper medical treatment of psoriasis is important because it improves patients' lives. The treatment itself can also affect quality of life based on efficacy, convenience, discomfort, and time commitment. In 40% to 80% of patients with psoriasis, stress is reported to influence onset and progression of the condition; direct and indirect suppression of the immune system is the most likely etiology (Barankin & Dekoven, 2002). Body image issues and stress may be improved with cognitive behavioral therapy, biofeedback, meditation, relaxation training or self-hypnosis. Self-hypnosis can reduce pruritusor itching and give a sense of greater self-control, which in turn can lessen the depression (Shenefelt, 2010).Psychological interventions and antidepressant medications may improve perceived symptom severity, quality of life and major compliance to the treatment in selected patients (suffering from psoriasis and mood disturbance), without a clinician necessarily being able to see an impact on psoriasis severity (D'Erme *et al*., 2012).

Vitiligo Stress can exacerbate vitiligo by changing immune function, increasing production of opioid peptides, increasing catecholamine release, and affecting other hormone pathways. Vitiligo in turn causes disfigurement, leading to increase in anxiety, embarrassment, self-consciousness and psychiatric morbidity along with low self-esteem (Lee& Koo, 2003). Younger patients and individuals in lower socioeconomic groups show poor adjustment, low self-esteem and problems with social adaptation (Porter *et al*., 1979; Koshevenko, 1989). Most patients with vitiligo report a negative impact on sexual relationships and cite embarrassment as the cause (Porter *et al*., 1990). Psychiatric morbidity is typically reported in approximately one-third of patients (Padopoulos *et al*., 1998), but, in one study, 56% of the sample had adjustment disorder and 29% had depressive disorders (Mattoo *et al*., 2001). In depression-prone individuals, vitiligo can initiate or exacerbate depression, especially in darkly pigmented individuals (Dogra & Kanawar, 2002). The prevalence of depression in vitiligo patients was 39% in a recent quality of life study (Sampogna

et al., 2008). Depression may be treated by antidepressants and cognitive-behavioral therapy (Papadopoulos *et al*., 1999). Hypnosis can also help to reframe the patient's perspective on their depigmented lesions, lessening secondary depression (Shenefelt, 2010). Atopic dermatitis, often its onset or exacerbation follows stressful life events (Bockelbrink *et al*., 2006; Picardi *et al*., 2001). Divorce or separation of parents and severe disease of a family member have been identified as particularly increasing risk (Bockelbrink *et al*., 2006). Adults with atopic dermatitis are more anxious and depressed compared with clinical and healthy control groups (Hashizume *et al*., 2005; Gupta and Gupta, 2003). Children with atopic dermatitis have higher levels of emotional distress and more behavioural problems than healthy children or children with minor skin problems. Atopic individual emotional problems may develop a vicious cycle between anxiety/depression and dermatologic symptoms. In one direction of causality, anxiety and depression are frequent consequences of the skin disorder.

The misery of living with atopic dermatitis may have a profoundly negative effect on health-related quality of life (HRQOL) of children and their families. Intractable itching causes significant insomnia, and sleep deprivation leads to fatigue, mood lability, and impaired functioning. In the other direction of causality, anxiety and depression aggravate atopic dermatitis. This may occur via several possible mechanisms, including modulation of pruritus perception (Gupta and Gupta, 1999), homeostasis (Garg *et al*., 2001), or acceleration of immune responses (Hashizume *et al*., 2005). A wide variety of treatments for atopic dermatitis have been advocated to interrupt the vicious cycle of itching and scratching. Mental health interventions include psychological, behavioural, and psychoeducational therapies e.g., relaxation training, habit reversal training, cognitive- behavioural techniques, stress management training. Psychotropic medications are also used for treatment of atopic dermatitis.

Psychological Management for psycho-cutaneous disorders
Acne

Acne vulgaris often flares with stress and premenstrually. With worsening of the acne, many individuals get more stressed, setting up a vicious cycle. Conventional acne treatments can help control the acne, reducing the patient's stress about having the acne. Stress may also be lessened with relaxation training, meditation, self-hypnosis, physical exercise, or biofeedback can directly counteract the stress (Lucky, 2004; Hughes *et al*., 1983).

Psoriasis

Psoriasis in many patients flares with stress. Along with standard treatments, stress reduction can help reduce flares. Many patients are distressed by the disfigurement of the skin by the psoriatic lesions. Alexithymia with dissociative somatization can aggravate psoriasis and has a higher risk of associated alcoholism. Body image issues and stress and may be improved with cognitive-behavioral methods, biofeedback, meditation, relaxation training, or self-hypnosis. (Griffiths & Richards, 2001; Masmoudi *et al*., 2009; Fortune *et al*., 2002; Tausk & Whitmore, 1999)

Vitiligo

In depression-prone individuals, vitiligo can initiate or exacerbate depression, especially in darkely pigmented individuals (Dogra and Kanawar, 2002). The prevalence of depression in vitiligo patients was 39% in a recent quality of life study (Sampogna *et al*., 2008). Cognitive-behavioural therapy may help reduce the depression (Papadopoulos *et al*., 1999). Hypnosis can also help to reframe the patients perspective on their depigmented lesions, lessening secondary depression.

Atopic Dermatitis

Atopic dermatitis is produced mainly by scratching and flares with stress though psychoneuroimmunomechanisms (Pallanti *et al*., 2005). Worsening atopic dermatitis can further stress the patient, who then tends to scratch more and further worsen the dermatitis. Stress may be lessened with cognitive-behavioural methods (Ehlers *et al*., 1995), hypnosis or self-hypnosis (Stewart *et al*., 1995). If indicated, adjunctive anxiolytic drugs or antidepressants may be employed.

Placebo and nocebo

Expectation forms the basis for the placebo effect. The use of placebo remains controversial (Hrobjartsson & Gotzche, 1994; Spiegel *et al*., 2001). The patient expectations, the doctor's expectations, and the doctor-patient relationship can affect the patient's experience of treatment, reduce pain, and influence outcome. While positive expectations or suggestions can produce positive placebo results, negative expectations or suggestions can produce negative nocebo results (Spiegel, 2004) Research on the placebo effect illustrates the extent to which the natural healing capacities of individuals can be enhanced and nurtured (Di Blasi & Reilly, 2005). In some common dermatologic conditions, such as acne and urticaria, the placebo effect is about 30% (Gupta & Gupta, 1996). Those skin disorders higher on the Griesemer scale 67 are more likely to have a significant placebo effect.

Cognitive-behavioral methods

Cognitive-behavioral methods alter dysfunctional habits by interrupting and altering dysfunctional thought patterns (cognitions) or actions (behaviors) (Levenson *et al*., 2000) that damage the skin or interfere with dermatologic therapy. Skin diseases responsive to cognitive-behavioral methods include acne excoriée, atopic dermatitis, factitious cheilitis, hyperhidrosis, lichen simplex chronicus, needle phobia, neurodermatitis, onychotillomania, prurigo nodularis, trichotillomania, and urticaria. Adding hypnosis to cognitive-behavioral therapy can facilitate aversive therapy and enhance desensitization and other cognitive-behavioral methods (Shenefelt, 2003).

Biofeedback

Biofeedback can enhance the patient's awareness of tension and help them to relax, improving skin disorders that flare with stress or that have an autonomic nervous system aspect.

Biofeedback of GSR can help reduce hyperhidrosis (excess sweating). Biofeedback of skin temperature by temperature-sensitive strip or by thermocouple can be used for relaxation, dyshidrosis, and Raynaud's syndrome (Sarti, 1998; Panconesi, 1998). HRV biofeedback can also help reduce the stress response that tends to exacerbate many inflammatory skin disorders. Hypnosis can produce relaxation and enhance the effects produced by biofeedback (Shenefelt, 2003).

Hypnosis

Hypnosis has many useful dermatologic applications. Medical hypnotherapy involves guiding the patient into a trance state of narrowed awareness, focused attention, selective wakefulness, and heightened suggestibility for a specific purpose such as relaxation, pain or pruritus reduction, or habit modification. The hypnotic trance compared with the usual waking state has objectively documented differences in regional cerebral blood flow (Rainville *et al*., 2002) and EEG (Freeman *et al*., 2000) patterns. One way that hypnosis may make suggestions more effective is by inhibiting competing thoughts so that the focus can be solely on the suggestion (Barrios, 2009). Hypnosis may improve or clear numerous skin disorders. Examples include acne excoriée, alopecia areata, atopic dermatitis, dyshidrotic dermatitis, erythromelalgia, furuncles, glossodynia and vitiligo. Generally, high and medium hypnotizables respond better than low hypnotizables, although for many purposes light trance is all that is necessary. Dermatologists should generally not use hypnosis with schizophrenics or others who are not mentally intact. Hypnosis also can reduce anxiety and pain associated with dermatologic procedures.

Conclusion

Skin diseases should be measured not only by symptoms, but also by physical, psychological, and social parameters. "Patients' needs arise from the disease itself, from the effects of the disease on the patient's life and from the process of care.

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