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Role of cultural factors in the biopsychosocial model of psychosomatic skin diseases: an Indian perspective

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Abstract Cultural factors can influence the experience and presentation of diseases, including psychosomatic diseases. Psychosomatic dermatology refers to skin diseases in which psychogenic causes, consequences, or concomitant circumstances have an essential and therapeutically important influence. Indian culture is one of the oldest and most diverse, and encompasses the various traditions and beliefs of people all over the vast Indian subcontinent. This paper discusses how cultural factors can influence the clinical course of some dermatologic problems and reviews the cultural dimension of some common skin conditions in India, including vitiligo, facial hypermelanosis, acne, atopic dermatitis, psoriasis, and leprosy. The paper illustrates some examples of the contributions of a patient's cultural values, beliefs, and practices to the biopsychosocial model of psychosomatic skin disorders.

Introduction

In simple terms, culture is defined as the sum total of ways of living built up by a group of human beings and socially transmitted from one generation to another, which includes the totality of behavior patterns, arts, beliefs, institutions, and all other products of human work and thought. It is in a constant process of change and evolution.[1] Cultural factors influence all diseases, including psychosomatic skin diseases, where religious and spiritual beliefs, diet, style of clothing, sun exposure, and socioeconomic status can play a major role in the presentation of the disorder. Indian culture is one of the oldest and most diverse, dating back to 8000 BCE and is a complex blend of ancient traditions and diverse subcultures spread all over the Indian subcontinent. A few peculiarities of Indian culture that can affect the clinical presentation of the patient are discussed as examples of how cultural factors can be an important component of the biopsychosocial model of psychosomatic skin disorders.

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Obsession with fair skin

Skin color is a pertinent issue in India,[2] as it is in most other South Asian countries. Most people, irrespective of age, sex, caste, and creed, aim for a lighter skin shade, which invariably leads to emotional, psychosocial, and monetary drain. It is estimated that 80% of the Indian population usually prefers light-skinned spouses. The preference for light skin in spouses is apparent as the socioeconomic status of Hindu individuals in North India increases.[2] The reasons for this may be the colonial influence, which gave lighter-skinned people a higher social rank; equation of light skin with beauty, attractiveness, and "goodness"; and even peer pressure among adolescents. In India, skin-whitening creams and processes help in garnering a major portion of the profits for cosmetic and cosmeceutical industries.

Culturally based alternative healing traditions

Indians, irrespective of religion, caste, and financial status, tend to have a strong belief in alternative healing traditions,

such as Ayurveda, Unani, Siddha, and homeopathy. Allopathic medicines are sometimes referred to as "English medicines" by lay people and are generally thought to be unsafe, possibly due to the potential for easily identifiable side effects. Some of the topical alternative dermatologic remedies are irritant in nature and have the potential to cause flare-ups of the original dermatosis (S.D.S., personal observation); therefore, some patients who try these alternative medicines present to the dermatologist with aggravation of their dermatoses, sometimes after considerable delay. This is especially so with atopic dermatitis and other chronic dermatides. Natural and home available remedies, like *neem*, *tulsi*, turmeric, *ghee*, sandalwood paste, and even cow dung and urine, are used to make medicine to cure skin and other diseases. Common rituals adopted by patients with chronic skin disease include visiting temples, performing offerings and *Puja*, taking a dip in "holy rivers," and so forth. During the festival of *Holi*, the festival of colors where people celebrate by spraying and rubbing colored water and powder on each other, aggravation of preexisting dermatitis and acne are seen owing to the toxic industrial dyes used in the colors.[3]

The clinician needs to be sensitive to the patients' culturally based practices and beliefs in the alternative methods. In modern India, there is congenial coexistence of doctors trained in Western medicine with those practicing traditional systems of healing, such as Ayurveda, Siddha, and Unani, along with faith healers (*swamis, sanyasi, maharaj babas, maatas, fakirs, and siddhas*), sorcerers, palmists, and horoscope experts who practice unique blends of religion, magic, alchemy, astrology, medicine, and faith.[4]

Foods, lifestyle, and socioeconomic status

Great importance is given to food in chronic skin diseases. Certain foods are incriminated in acne and in itchy conditions, such as chronic urticaria and chronic dermatitis. Brinjals, black gram, eggs, and chicken are considered "allergenic" by the patients. Food is not blamed in relatively non-itchy conditions, such as alopecia areata.

Chronic allergic dermatitis, such as Parthenium dermatitis, frequently affects exposed parts of the body, such as the face, neck, and arms, or even flexures and skin folds, in the form of airborne contact dermatitis. Although it is frequent in men, women are increasingly becoming affected because of their changing role in society. Most of the patients are agriculturists and involved in outdoor work with photo aggravation. The frequent relapses and financial constraints for immunosuppressive therapy and continued treatment are responsible for the mental distress in these patients.

Socioeconomic status can be an important determinant in the presentation of dermatologic problems. The economically underprivileged may neglect skin diseases and present only when the disease becomes generalized or complicated by pyoderma or maggot infestation with ulcerations and fissures. The clinician should be aware that mental illness is an important sociological determinant of poverty, and the lack of self-care in the patient who is also unable to afford treatments could be largely because of underlying undiagnosed mental illness.

Individual diseases

Vitiligo and other disorders of pigmentation

Vitiligo[5-7] may have its initial onset at a young age, usually in the first or second decade. This leads to a considerable amount of emotional lability, as it is the age where preoccupation with body image is at its peak. The psychosocial impact of vitiligo on women is greater, and this is tragic, as with India being a predominantly patriarchal society with regard to inheritance and marriage, female beauty is of great value in the arranged marriage market, where an unflawed, uniformly fair bride is sought after. There are instances wherein unaffected girls whose mothers suffer from vitiligo are shunned by prospective grooms. Marital discord has been reported, if individuals discover vitiligo lesions on their spouse.

Melasma is common in Indian women, as there is a genetic tendency, along with prolonged hours spent outdoors in the tropical sun without adequate photoprotection, and also by repeated pregnancies. Postinflammatory pigmentation and conditions, such as lichen planus pigmentosus and ashy dermatosis, are also seen, because Indian skin is pigmented and the chance for postinflammatory pigmentation is high. Most Indian women, barring caste and age, religiously apply dubious "fairness creams," available in the market, as well as topical steroids (available as over-the-counter products without requiring a prescription). After years of constant use of such creams, they seek the help of dermatologists for the treatment of resulting dyschromia.

Pigmented contact dermatitis commonly occurs on the foreheads of women as a consequence of using *kumkum,* a red powder applied as a small dot on the forehead (*bindi*), which is a mixture of various dyes, such as azo dyes, coal tar dyes, toluidine red, erythrosine, lithal red calcium salts, and turmeric. It may also occur secondary to use of *bindis* containing adhesive.[8] As use of a *bindi* is often related to marital status and prosperity, despite extreme allergic dermatitis and resultant pigmentary changes, many women continue daily application of *bindis*. In some castes, men also use *kumkum* on their foreheads. Allergic contact dermatitis with resultant pigmentary changes may also be seen with use of sandalwood paste on the forehead and chest.

Atopic dermatitis

Atopic dermatitis in India is relatively milder than in the West.[9] The factors responsible may be prolonged breast feeding, warmer climatic conditions, dietary habits, clothing, low frequency of personal and family history of atopy, and the low colonization of atopic skin by *Staphylococcus*

aureus.[10] Increased psychological disorders are found in Indian children with atopic dermatitis. More mothers of children with atopic dermatitis are submissive, which may be a contributing factor in psychological disorders and maintenance of dermatitis in children.[11]

Psoriasis

In India, the prevalence of psoriasis[12-16] varies from 0.44% to 2.80% and is twice as common in men than in women, with most of the patients being in their third or fourth decade at the time of presentation; 60% of patients in North India have the onset of psoriasis before the age of 30. Most patients with psoriasis in India complain of pruritus. Stress from cosmetic disfigurement and stress from coping with the physical aspects of psoriasis are almost similar in Indian and American patients.

Patients feel self-conscious, disturbed by the shedding of skin, live in fear of relapse, and avoid social situations.[17,18] A comparative study of patients with psoriasis and vitiligo has revealed greater participation restriction among patients with psoriasis than in patients with vitiligo. There are problems in relationship and employment. There is delayed presentation of patients with psoriasis to the doctor when unexposed body parts are affected.[19] Of 113 patients in an outpatient clinic in India, psychiatric morbidity (depression and adjustment disorder) was identified in 25 subjects.[20] On the whole, women tend to be more concerned about disfiguring skin diseases, such as psoriasis, which can affect a woman's concept of self physically, emotionally, socially, and spiritually.[21] Many women with skin disorders may feel trapped within an unfamiliar, unappealing body and have a gross negative self-image. Perhaps this is more so in India, where there is undue importance attached to a woman's fair skin and comeliness. We have encountered a few hapless women with psoriasis and vitiligo who have been diagnosed as having severe depression and suicidal tendencies.

Chronic urticaria

Chronic urticaria is a very common, yet puzzling disease, which harasses patients as well as their dermatologists. Frequently, no convincing cause is detected for the almost daily eruption of disturbing and itchy wheals. The importance of detecting an underlying psychiatric disorder in chronic urticaria is important. In a case report, 3 women with severe, chronic, unresponsive urticaria on psychiatric evaluation were found to be suffering from severe depression, and their lesions remitted after starting antidepressants.[22] Stress has been seen in 26% and 16% of patients with psoriasis and patients with chronic urticaria, respectively, in the preceding year of the onset or exacerbation of the disease.[23]

Acne

There is a paucity of data on quality of life in patients with acne in India.[24] Although there are no published large-scale studies related to acne and psychological morbidity, it is the personal experience of Indian dermatologists that disfiguring acne along with postacne pigmentation and scar formation can lead to severe depression and even suicidal ideation in many young people. Acne is very prevalent in India, and it can lead to considerable social and emotional distress. There are many instances where acne precipitates sociophobia and depression in the impressionable young. There are instances of bullying and teasing related to body morphology and features. Many patients come seeking expensive scar and pigmentation reduction treatment.

Alopecia areata

Abundance of hair in the right places is equally important for an enhanced body image in both sexes. Alopecia areata is a common, although psychologically disturbing, autoimmune condition leading to patches of hair loss in varying amounts. In India, a clinical study of 250 patients showed that in 80% of cases, the onset is before 30 years of age, and women were affected at a relatively younger age as compared with men.[25]

Leprosy

In the strict sense, leprosy cannot be labeled as a psychodermatological disease.

The impact of this disease on the psyche of the person is perhaps much more than any other skin condition in India. India is, and has been, one of the leading endemic spots for leprosy. The social stigma of the disease is far worse than the disease itself.[26] It is still possible to encounter disabled and disfigured social outcasts and beggars who show the stigmata of leprosy. Leprosy is indeed the most feared of skin diseases in India. Since ancient times, this disease has been known in local dialects as *kushth,* and utterance of the word is sufficient in itself to evoke fear and aversion in the common individual, as it was considered as a form of divine retribution. Even today, in spite of the vast elimination and education campaign by the Indian government against leprosy and its stigmatization, disfigured patients with leprosy bearing the easily identifiable clinical signs of the disease are ostracized. The social stigma associated with leprosy may lead to divorce, eviction from home, loss of employment, and ostracism from family and social networks.[27]As a result, the patient may conceal the disease in the early, easily treatable stage, and later get dissociated from society, leading to self-neglect and occurrence of visible stigmata owing to lack of proper care. An exhaustive interview of people living in leprosy colonies in Benares in North India[26] showed sadness and resignation as the prevalent emotion among the inmates. There was dissociation or aversion from the limb affected by leprosy, leading to neglect of the affected limb in most cases. This was concordant with studies carried out in other areas and is a serious issue, as the neglected arm or leg may further disintegrate without proper care. To allay public fear and aid

thousands of people, in 2005 representatives of the estimated 630 leprosy colonies in India met in New Delhi. Entitled ''Empowerment of People Affected by Leprosy,'' this conference sought to demarginalize those affected by the disease and reintegrate them into society.[28] Another study[29] comparing psychiatric morbidity in 246 patients with leprosy and 63 patients with psoriasis found that there was significant psychiatric morbidity in 12.2% of patients with leprosy as compared with 47.6% of patients with psoriasis, although the general health quality was much more significantly impaired in leprosy than in psoriasis. The commonest diagnoses were anxiety and depression.[29]

On the whole in India, the highest rates of psychiatric morbidity were found among patients with chronic urticaria, exfoliative dermatitis, and sexually transmitted diseases, including HIV,[30] although the highest impairment of general quality of health scales was found in leprosy.[29]

Other conditions

Delusions of parasitosis often involves younger patients and usually do not become chronic; antipsychotic treatments are effective, if patients are seen early in their illness.[31]

Idiopathic somatic complaints and symptoms pertaining to the skin are generally common in women of lower socioeconomic strata.[32] Commonly reported somatic symptoms in India included "burning hands and feet" and "hot, peppery sensations in head."[33]

Conclusions

Cultural factors can play a significant role in the pathogenesis, clinical presentation, and impact of the skin condition on quality of life, choices of treatments, and treatment adherence, and in some cases, the prognosis of a wide range of dermatologic conditions. The easy visibility and accessibility of the skin makes dermatologic disorders more susceptible to cultural influences. Clinicians should consider their patients' cultural heritage and practices when using the biopsychosocial model to manage psychosomatic skin disorders.

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