

A NARRATIVE REVIEW OF SKIN SYMPTOMS IN PSYCHIATRY AND PSYCHOLOGICAL CO-MORBIDITY IN DERMATOLOGY.

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Page | 1 **Abstract**

Objective

This narrative review aims to elucidate the intricate relationship between dermatological and psychological conditions, emphasizing the importance of a collaborative approach between dermatologists and psychiatrists. By exploring the physiological and psychological interactions contributing to various skin disorders and their mental health implications, the review seeks to provide a comprehensive understanding that can inform future clinical practices and research.

Summary

The review underscores the dual origin of the skin and nervous system from the ectoderm, highlighting their interconnectedness. Chronic stress and psychological conditions such as depression and anxiety are shown to exacerbate skin conditions like alopecia, eczema, and psoriasis. Conversely, visible skin conditions can lead to significant psychological distress, contributing to mental health disorders such as depression and anxiety. The review categorizes psychodermatological conditions into three main types: psychophysiological disorders, which are skin conditions triggered by underlying psychological issues; primary psychiatric conditions, where skin disorders result directly from psychiatric disorders; and secondary psychiatric conditions, where psychological issues arise from primary skin conditions.

Application for Future Research

The narrative review proposes several avenues for future research. Comprehensive clinical trials are needed to explore effective treatments for psychodermatological conditions, providing evidence-based strategies for managing these disorders. Incorporating psychodermatology into medical education can better equip future dermatologists to handle these complex cases, fostering a more integrated approach to patient care. Developing models for collaborative care involving both dermatologists and psychiatrists can enhance treatment efficacy and improve patient outcomes. Additionally, longitudinal studies focusing on the long-term outcomes of patients receiving combined dermatological and psychological treatment can provide deeper insights into the effectiveness of this approach.

Keywords: Skin symptoms, Psychiatry, Psychological co-morbidity, Dermatology.

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Introduction

It is generally agreed that dermatology and psychology are only somewhat closely related to one another. A better understanding of the link that exists between the skin and the nervous system may be gained from the fact that both originate from the ectoderm. There is a correlation between chronic stress and alopecia, which is often reported at the dermatology clinic. Chronic psychological illnesses have been discovered to be the cause of a variety of skin ailments, including rosacea, herpes, eczema, urticaria, and other forms of skin inflammation [1]. The number of illnesses that have been reported at the dermatology clinic has been increasing, and the stress that is linked with these diseases has also been shown to have an effect on the pathological state of certain skin conditions.

It is the mission of dermatologists to provide therapy that not only stops the progression of skin disease but also

prevents it from occurring again in the future. On the other hand, treating patients with traditional drugs makes the problem that is already there worse, because it contributes to the development of other skin conditions in certain instances [2]. It is possible that obtaining favourable results might be facilitated by treating the underlying root problem. Dermatologists may be unable to provide appropriate treatment for pathological skin conditions if they are not equipped with the necessary information and are not aware of the connections that exist between the fields of psychiatry and dermatology.

This study takes into account the previous research that has been conducted in the fields of dermatology and psychiatry. In addition, the study intends to provide an illustration of the most recent developments in the treatment of skin disorders. While the authors have made an effort to extrapolate the data to future trends in the event that the psychiatrist and dermatologist work together, the authors have also

presented their findings. Towards the conclusion of this review, it will be possible to get a comprehensive grasp of the skin disease, its effects on the quality of life, and the underlying psychological comorbidity.

Methods

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The methodology for this narrative review involved a comprehensive literature search aimed at identifying relevant studies on the relationship between dermatological and psychological conditions. The review focused on literature published between 2000 and 2023. This timeframe was chosen to ensure the inclusion of the most recent and relevant studies, reflecting the latest advancements and trends in psychodermatology.

Only studies published in English were considered for this review. This criterion was set to maintain consistency and ensure the reviewers could accurately interpret and analyze the findings. Both peer-reviewed articles and grey literature, such as theses, conference papers, and reports, were included. This comprehensive approach allowed for a broader understanding of the topic, capturing insights from various sources.

The review included a wide range of study designs, including randomized controlled trials, observational studies, case studies, and systematic reviews. The primary databases searched were PubMed, MEDLINE, PsycINFO, and Google Scholar. These databases were selected for their extensive coverage of medical, psychological, and interdisciplinary research.

The search strategy involved using specific keywords and phrases related to psychodermatology. The following search terms were used, both individually and in combination: "psychodermatology," "dermatology and psychiatry," "skin conditions and mental health," "psychophysiological disorders," "primary psychiatric conditions," and "secondary psychiatric conditions." Boolean operators (AND, OR) were used to refine the search and ensure comprehensive coverage of relevant literature.

The initial search yielded a large number of articles, which were then subjected to a two-step screening process. In the first step, titles and abstracts were reviewed to identify studies that met the inclusion criteria. Studies that appeared relevant based on their abstracts were then subjected to a full-text review. During the full-text review, data were extracted on the study design, sample size, methods used, key findings, and relevance to the review's objectives. The extracted data were then analyzed thematically to identify common patterns, themes, and gaps in the existing literature.

To ensure the reliability and validity of the included studies, a quality assessment was conducted using standardized tools

appropriate for different study designs. Randomized controlled trials were assessed using the Cochrane Risk of Bias Tool, observational studies were evaluated using the Newcastle-Ottawa Scale, and systematic reviews were appraised using the AMSTAR (A Measurement Tool to Assess Systematic Reviews) criteria. Studies that did not meet a minimum quality threshold were excluded from the final analysis.

The findings from the included studies were synthesized narratively, given the heterogeneity in study designs and outcomes. The synthesis aimed to provide a comprehensive overview of the relationship between dermatological and psychological conditions, the effectiveness of integrated treatment approaches, and the implications for future research and clinical practice.

Skin and mind

The skin is the largest organ of the body, its physiological role is to protect the body from external environment. However, the hormones and the inflammatory substances released by the brain in response to mental health disorders have a substantial effect on the condition of the skin. Skin and brain are connected by their origin from the ectoderm. Also, skin condition determines the appearance of the person. In recent times there has been a steep increase in the availability of skin care products, this indicates that keeping the skin intact is not only important because of its physiological role but also its cosmetic role. Appearance of the skin affects the social life and self-esteem of the people. Skin can have certain pathological conditions due to underlying mental disorders or vice versa mental health can be affected due to certain skin conditions. Psychodermatology is a field that has come into the limelight in the last decade. This field deals with the relation between the skin and the brain. As per psychodermatology, the skin condition is broadly classified into three categories as per their relationship with the psychiatric comorbidity.

Psychophysiology- In this case, the skin's pathological condition occurs due to underlying conditions such as chronic stress, depression and anxiety. Alopecia, hyperhidrosis, herpes, psoriasis, eczema, and rosacea. These conditions are precipitated due to underlying mental health conditions.

Primary psychiatric condition- In such a condition, the primary cause is mental health disorders such as schizophrenia, Alzheimer's, Parkinson's disease, and bipolar disorders. The skin conditions are either self-inflicted under the influence of mental health conditions or they are delusional. Delusional infestation of worms, pulling of hairs, picking skin, and any other visible self-inflicted harm to the skin.

Secondary psychiatric condition- In this case, the primary cause is the skin condition and mental health is affected by the skin's pathological state. Vitiligo, severe acne, genital herpes, severe alopecia, and rosacea such condition has significant effects on the appearance of the skin. They cause humiliation and decrease the self-esteem of the people suffering from such conditions.

In all the 3 cases, integration of the psychiatric treatment can improve the outcome significantly. Dermatologists consider psychotherapy along with the conventional treatment of the skin condition can result in preventing the recurrence and improvement in the pathological condition. Treatment with anti-depressants and anxiolytics has shown improvement in the skin's pathological state. Considering the proportion of the individuals affected by such conditions. It is found in certain study that almost 30% of the population suffering from dermatological conditions affects their mental health [3]. Since the mind and skin both are influenced by each other skin disorders such as psoriasis led to a mental health problem such as depression, which can further cause the worsening of psoriasis. Even though conventional dermatological treatment can help alleviate the skin condition if the underlying mental condition is not treated then it might cause a relapse of the skin condition.

Considering statistics there are about 10-15 % of the individuals who suffer from psoriasis, vitiligo, severe acne, and herpes have exceptionally low self-esteem. Often these individuals are suffering from depression or anxiety. Social stigma associated with the appearance of flawless skin is the prime contributor to secondary psychiatric conditions, other than that childhood trauma, and familial and domestic issues cause overwhelming emotional responses. Individuals participating in the study reported that the relapse of the skin condition occurs as soon as there is an emotional trigger [4].

Health-related quality of life of the patients suffering from psychodermatological disorders.

The health-related quality of life of the patients is severely impaired when the patients are suffering from psychodermatological disorders. A study compared the health-related quality of life of the patients suffering from skin diseases and those who are suffering from chronic diseases they found that the impairment in the health-related quality of life of the patients is similar for the patients suffering from chronic disorders such as cancer, diabetes, cystic fibrosis, and kidney diseases. These findings suggest that although the mortality associated with dermatological diseases is not comparable to other chronic diseases it affects the mental health of the individual in a similar manner.

In a study in which patients suffering from depression, anxiety, and chronic stress participated, it was found that 50% of them had acne, nearly 90% of them had other skin conditions such as rosacea and alopecia, and all of them had excessive sweating [5]. This study concluded that mental and physical health was not optimum in such patients. Psychodermatology takes into account not just the psychological and dermatological aspects but also the social aspects. A study found that dermatological conditions often affect not only the patients mentally but also the family of the patient [6]. In a study conducted where pediatric populations suffering from psoriasis were evaluated for their mental health, it was found that not only the children, but their parents also had depression and anxiety associated with the psoriasis of their child [7,8]. Although it might seem to be a mental issue compared to other lifestyle disorders such as diabetes and hypertension, the condition of the skin is visible externally which causes shame and self-pity every time an individual sees themselves. The pathological condition of the skin limits the social interaction of the patient due to the shame associated with the visible skin condition.

Response to dermatological conditions is subjective when considering the patients. Some patients easily deal with the condition without losing their social life whereas others do experience a shift in their mental state. They withdraw themselves from all kinds of social interactions leading to depression. The point of considering mental health with dermal conditions is to resolve the issue and prevent its recurrence. The dermatologist needs to cater to individual needs by understanding the pathology of the condition and the emotional triggers that led to such a condition. Health-related quality of life can be improved only when the dermal condition and mental condition are treated well.

Manifestation and treatment options for psychodermatology patients.

Psychophysiological disorders occur when chronic stress is precipitated into physiological changes. This is identified when the conventional treatments do not help in getting rid of the disease. Treatment-responsive pathological conditions of the skin can be treated with conventional medicine but when the patient does not respond to the treatment dermatologist should consider checking the mental health status of the patient. Patients might not easily give information about their mental health status. If necessary psychiatric referral should be given in a diplomatic manner. In case of severe depression and anxiety non-sedating antidepressants and anxiolytics should be considered for the treatment. Apart from that patient should be advised to undertake stress-reducing activities as a part of their daily routine.

Primary psychiatric conditions, patients with primary psychoses either have a delusional belief that their skin is infested with certain organisms or they themselves self-

inflict the skin lesion or pull their hair. Often such conditions arise due to underlying psychoses such as obsessive-compulsive disorder and schizophrenia. In certain cases, the lesions are caused by fingernails whereas in other cases the lesions are caused by cigarette butts and other sharp objects. Anti-psychoses drugs should be considered for the treatment. Apart from treating the psychological disorder the skin condition also needs to be treated to prevent secondary infections due to lesions. In the case of delusional psychoses, the patient should undergo rigorous antipsychotic treatment. Skin conditions due to underlying psychoses are often difficult to treat because even if the skin is treated until the psychiatric illness is completely treated such skin conditions will keep showing.

The secondary psychiatric disorder arises due to an underlying skin condition. Vitiligo, severe acne, hyperhidrosis, and other illnesses can have devastating effects on an individual's mental health. Such occurrences are subjective considering the patient might deal with it, without precipitation of any secondary mental health disorder. Some patients consider this condition as life-ruining, this can be because it may lead to financial crisis as the patients rely on their appearance for their jobs. In some cases, the patients might completely withdraw themselves from the social activities causing a vicious cycle of depression and worsening of the skin conditions. Secondary psychiatric disorders should be dealt with with utmost care as they can lead to suicidal tendencies and suicide if not identified early and treated appropriately.

Current scenario

Psychodermatology is an upcoming niche. The niche is yet to be explored and the literature available with regards to this niche is very scarce. Often busy clinic schedules and other professional commitments prevent dermatologists from identifying the underlying cause of skin conditions. The underlying psychoses might go unnoticed which leads to worsening of the mental health state along with the skin condition. After a long duration identification of existing mental and dermal states might not lead to a reversal of the illness.

Subjects of psychodermatology are now getting the limelight, they are now added to the medicine syllabus. This will guide future generations of dermatologists to identify the illness and treat it as per the required treatment options available. The current data available is not enough to conclude the treatment of psychodermatology. Often the course of treatment relies on neuropharmacotherapeutic drugs. However, along with drugs psychiatric consultation should be considered as the primary mode of treatment.

Collaboration of professionals

Dermatologists are not equipped with professional training to identify mental disorders. A study was conducted in which 45 consultations with the dermatologist were reviewed in which certain patients were confirmed for the diagnosis of mental health conditions such as depression and anxiety [9]. Dermatologists were able to identify one-fourth of the patients with mental health disorders.

Standard tools such as the Beckmann depression index, preset questionnaires to determine the health-related quality of life score and other tools are required to diagnose psychiatric illness [10,11]. Psychiatrists undergo years of training to understand and diagnose such conditions. Thus, a collaboration of dermatologists and psychiatrists can aid in the optimal treatment of the patients. Psychiatric referral should be given by a dermatologist if they identify any symptoms which might be related to the mental health of the patient [12].

Future trends

There is a profound increase in the awareness of mental health amongst people. The precipitating skin conditions can be easily considered as the manifestations of the existing mental health disorders [13,14]. More clinical trials in the field of psychodermatology and the collaborative efforts of professionals can generate significant data to resolve psychodermatology diseases in future [15].

Conclusion

This narrative review underscores the critical interplay between dermatological and psychological conditions, emphasizing the necessity for integrated treatment approaches involving both dermatologists and psychiatrists. By highlighting the bidirectional relationship between skin disorders and mental health issues, the review advocates for a holistic approach to patient care that addresses both physiological and psychological factors. Future research should focus on comprehensive clinical trials, improved medical education, and collaborative care models to enhance treatment outcomes. Despite certain limitations, this review provides a valuable foundation for understanding and addressing psychodermatological conditions, ultimately aiming to improve patients' quality of life.

Limitations

This narrative review is limited by its restriction to English-language publications, potential publication bias, heterogeneity in study designs, variable quality of included studies, and reliance on a specific set of databases. The focus on literature from 2000 to 2023 may exclude earlier

foundational works, and the narrative synthesis involves some subjectivity. Additionally, findings may have limited generalizability due to diverse geographical, cultural, and clinical contexts of the included studies. Despite these limitations, the review provides valuable insights into the intersection of dermatology and psychiatry.

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