Review Article

Psychological Profile of Patients with Psoriasis

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Abstract

Introduction: Psoriasis is a chronic inflammatory disease with a global prevalence of approximately 2% and significant psychiatric comorbidity. There is a great deal of existing literature assessing different aspects of psychology in psoriasis. We aimed to conduct an in-depth review of current evidence linking psoriasis to personality traits and psychiatric comorbidities, as well as factors that put these patients at risk of psychopathology. Materials and Methods: A search of the PubMed database identified 1632 articles. We included articles studying psychological comorbidity in patients with psoriasis, looking especially at personality characteristics, and data linking psoriasis with increased risks of psychological distress, depression, anxiety and suicidality. In particular, we also evaluated subgroups in psoriasis found to be at risk. Results: Patients with psoriasis are more likely to be alexithymic, lack body awareness and possess a Type D personality. Alcohol, but not illicit drug use, disorders are also more common in patients with psoriasis. Patient groups who are especially at risk of psychological distress include women, younger patients, patients with a younger age of disease onset, those who self-assess their psoriasis to be severe, and those with lesions on visible or sensitive areas. Adopting motivational interviewing skills and incorporating the use of learning materials during consultations have been found to be useful. Conclusion: The knowledge of personality characteristics, "at-risk" groups, and early recognition of psychological distress among patients with psoriasis can help clinicians provide better holistic care and encourage a change in patients' behaviour.

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Introduction

Psoriasis is a chronic inflammatory skin condition that affects approximately 2% of the population worldwide.[1] The association between psoriasis and psychiatric disease is well documented and has been much better characterised in recent years. This has helped shed light on the intricate relationships between disease severity, personality and psychiatric comorbidity.

In many studies, psoriasis has been shown to be significantly associated with depression, anxiety and suicidal ideation.[2] Mechanisms connecting anxiety, depression and inflammation in psoriasis have been postulated and maladaptive cognitive and emotional patterns have been identified.[3,4] The use of psychotherapy such as cognitive behavioural therapy has been trialled, and found to be correlated with reduced disability, stress and interestingly even physical severity of psoriasis.[5,6]

Previous ethnographic research that studied patients with psoriasis in terms of disease impact and treatment satisfaction has identified key thematic categories of disappointment with treatments and confusion about psoriasis associated with a lack of direction from the treating physicians with regard to diagnosis and treatment regimens.[7] Evaluating and examining aspects of these patients' behaviours can aid healthcare professionals greatly in developing strategies to address the holistic management

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of patients with psoriasis, and to identify factors that predict the success of adherence to medication in such patients.

The body of literature examining the roles of personality, psychology, psychopathology and psychiatric comorbidity in psoriasis is vast. Individual studies focus on different aspects of this complex interplay of relationships, and this poses significant challenges for a single review to encompass the sheer breadth of knowledge in this vein. With this in mind, we felt that a review was timely, to provide an update and identify recommendations for clinical practice.

Materials, Methods and Results

We performed multiple searches on the PubMed database up to 11 November 2018 to identify articles investigating possible associations with the search term 'psoriasis and personality (or psychology or psychopathology or psychiatry)'. A total of 1632 articles dated from 1973 to 31 October 2018 were identified. Though this was not a systematic review, we analysed these articles to put together a picture of a psychological profile of patients with psoriasis, emphasising on clinically relevant aspects such as personality traits, psychological needs, psychopathology, suicidality, substance use and "at-risk" subgroups.

Personality Traits in Patients with Psoriasis

The concept of patients with psoriasis having a different personality profile is alluded to in the scientific literature. Martín-Brufau et al tested this hypothesis in a cross-sectional study involving 36 patients with psoriasis. Results demonstrated significant differences from healthy controls across various personality traits. Most remarkably, patients were found to favour practical over abstract thought, lacked innovation, and exhibited dependence and non-dominant personality styles.[8]

Later research that attempted to define this personality type has shown that patients with psoriasis are more likely to possess a Type D (D for "distressed") personality, characterised by high levels of negative affectivity (NA) and social inhibition (SI).[9] NA refers to the tendency to experience negative emotions across time and situations, whereas SI refers to the tendency to inhibit behaviours and the expression of emotions in social interactions.[10] In a more recent comparative pilot study, the prevalence of Type D personality was found to be 38.7% in patients with moderate to severe psoriasis, as compared to 23.7% in healthy controls (P <0.001).[11]

The combination of high NA and SI in individuals with Type D personality means that they experience strong negative emotions which they refrain from expressing, due to their fear of disapproval and rejection. This leads to discomfort, insecurity and a penchant for anxiety, stress and self-reproach.[10] Importantly, in patients with psoriasis, having a Type D personality has been found to be linked to increased perceived stigmatisation, with the SI aspect accounting for a greater component of this association.[12]

In a study of 185 adults, of whom 55 had psoriasis, Mizara et al found that psoriasis patients were also more likely to demonstrate early maladaptive schemas, namely emotional deprivation, social isolation, defectiveness, failure, vulnerability to harm, subjugation and emotional inhibition.[13] These were found to be significant predictors of psychological distress manifesting as anxiety and depression. Most importantly, the presence of emotional inhibition causes individuals to have difficulties communicating their emotions and needs, and is in keeping with a high prevalence of alexithymia in psoriasis patients.[14]

Alexithymia is a term first proposed by Sifneos in 1972, which literally means a lack of words for emotion (from the Greek a = lack, lexis = word, thymos = emotion).[15] Prevalence estimates of alexithymia in psoriasis patients vary, but have been reported to be as high as 40%, compared to 13.3% in controls in a recent study.[14] This term encapsulates elements of a Type D personality and decreased intuition, and is defined by a limited ability to identify and communicate emotions, and also difficulty distinguishing feelings from bodily sensations.[16] It is also characterised by restricted imagination and externally oriented cognition.[16] Of special relevance to the clinical context, the inability to describe emotions leads to individuals with alexithymia misinterpreting physical symptoms of emotional arousal as symptoms of somatic illness.[17] It has been proposed that alexithymia predisposes to ineffective coping and stress, which is a known triggering factor for psoriasis.[13]

Another pertinent personality characteristic that has been found in patients with psoriasis is the lack of body awareness, which is related to alexithymia.[18] The concept of body awareness is important in psoriasis, as self-care is important in preventing further worsening of the disease condition. Body ignorance (not recognising or ignoring bodily symptoms) was found to be associated with more itch, pain, fatigue, scratching, avoidant coping, neuroticism and helplessness in patients with psoriasis.[18] It was also associated with lower levels of extraversion and acceptance, as well as a decreased quality of life.[18]

All in all, these studies suggest that inherent personality traits play an important role in the holistic management of patients with psoriasis. A better understanding of the psychological profile allows for targeted approaches towards ameliorating the psychosocial disturbances associated with psoriasis.

Needs of Patients with Psoriasis

While healthcare professionals involved in the care of patients with psoriasis are aware that it can impact patients physically, emotionally and socially, patients commonly

feel that there is a lack of opportunities to discuss aspects of living with the disease during consultations.[19,20] Thus, it becomes important for doctors to examine the disabling impact of psoriasis from the patients' perspectives, or at least to proactively explore each individual's needs. If doctors are perceived to circumvent these topics or to lack expertise in managing psoriasis, this may adversely affect treatment adherence and overall patient care.[7,20]

A study exploring individual psychosocial support needs of psoriasis patients revealed significant confusion regarding psoriasis associated with a lack of direction from the treating physicians.[7] Key characteristics experienced by patients include substantial tangible and emotional costs, the hidden nature of psoriasis, having to bear the burden of psoriasis alone, and lack of patient direction and authority.[7] Issues raised included worry, hiding of symptoms and concerns about others' perception of hygiene and infectivity. Significant themes were related to isolation, stigmatisation, visible symptoms, hopelessness and impact on daily activities.[7]

In a qualitative study, Nelson et al looked at the needs of 29 patients with psoriasis, especially with regard to the clinical consult.[19] Key themes identified included a desire for the reality of living with psoriasis to be understood, and for professional engagement with the effects of psoriasis.[19]

Having identified the needs of patients with psoriasis, doctors must be additionally sensitive to any expression of distress by patients with psoriasis and should not give the impression that they are sidestepping patients' attempts at sharing their emotions. This highlights the need for a positive, sympathetic doctor-patient relationship where a non-judgemental approach is taken, and sufficient opportunity given for patients to explore their issues.

Psychopathology and Suicidality

The link of psoriasis with stress, depression and anxiety has been demonstrated.[21-26] The prevalence of depression has been shown to be as high as 33.7% in patients with psoriasis, compared to 22.7% of healthy controls.[26] Though there are less data on anxiety, the prevalence of anxiety in patients with psoriasis is also found to be consistently higher than that in normal controls.[26] It is clear that there is a significant mental health burden among patients suffering from psoriasis.

Depression has been theorised to aggravate inflammation in the setting of psoriasis via the induction of elevations in inflammatory cytokines and the abnormal activation of the hypothalamic-pituitary-adrenal axis, causing the stimulation of local cutaneous cytokines, and expression of immune-trafficking adhesion molecules. Increased activation of the sympathetic nervous system is hypothesised to be another factor, with noradrenaline as the main player in inducing cytokines in causing cutaneous inflammation.[3,27,28] The presence of inflammation has been theorised to cause depressive symptoms, possibly via the shunting of tryptophan and increasing the breakdown of serotonin, creating a functional serotonin deficit.[29-32]

Thoughts of self-harm and suicide are likewise more common in patients with psoriasis.[22-25,33,34] A meta-analysis evaluating the relationship between psoriasis and suicidality found that the pooled odds ratio (OR) for suicidal ideation and suicidal behaviours in patients with psoriasis—as compared to those without—was 2.05 (95% CI, 1.54-2.74) and 1.26 (95% CI, 1.13-1.40) respectively. Patients with psoriasis were more likely to attempt (pooled OR, 1.32; 95% CI, 1.14-1.54) and complete suicide (pooled OR, 1.20; 95% CI, 1.04-1.39) than those without psoriasis.[34] A greater likelihood of suicidality was found in patients with more severe disease, as well as in younger patients.[34]

Alcohol and Drug Use in Psoriasis

It is well established that the misuse of alcohol is more common in patients with psoriasis.[35-37] In a cross-sectional study conducted in the United Kingdom, 30.6% of study subjects were found to have alcohol use disorder compared to 14.3% in the control group with non-inflammatory skin lesions, representing the general population.[37] The physical severity of psoriasis has been associated with increased alcohol consumption.[38] This suggests the role of alcohol as a maladaptive coping strategy in psoriasis. Excess alcohol consumption is related not only to worsening of psoriasis, but also to depression, anxiety and poorer response to treatment.[39,40] Systemic drugs used commonly to treat psoriasis, including acitretin and methotrexate, may also be potentially hepatotoxic, limiting their suitability in patients with chronic alcohol misuse.[41] Additionally, patients with psoriasis have also been found to have an approximately 60% greater risk of dying from alcohol-related causes.[42]

In the few studies which evaluate the prevalence of illicit drug use in patients with psoriasis, it was not found to be significantly more common than in healthy controls.[43,44] Further studies on a larger scale may be needed to validate these results.

Looking at "At-Risk" subgroups in Psoriasis

Women

Female patients with psoriasis have been found to be at higher risk of psychological distress than males,[45] and are more likely to report a greater impact of the disease on their quality of life.[46] In a study involving 115 hospitalised patients with psoriasis, female patients also reported higher levels of stigmatisation, which was in turn also found to be the strongest predictor of quality of life impairment.[47]

When Type D personality traits were isolated, it was found that women with psoriasis demonstrated more SI and NA compared to healthy female individuals. While male patients with psoriasis also had higher levels of NA compared to healthy male controls, women with psoriasis demonstrated significantly higher NA compared to men with psoriasis.[12] Another study showed that males showed more phobic fears and depressiveness than women, who showed more neuroticism.[48]

Younger Patients

Younger patients with psoriasis have an increased risk of psychological distress compared to older patients,[29] and are more likely to experience suicidality compared to older patients.[34] A qualitative study exploring adolescents' lives with psoriasis identified main themes of physical symptoms, feeling different, psoriasis-related worry about the future, increased attention due to appearance, attempts to conceal skin, and treatment-related frustrations and worry.[49]

Younger Age of Disease Onset

A younger age of onset of psoriasis is associated with an increased risk of anxiety traits and depression, manifesting as somatic trait anxiety, psychic trait anxiety, stress susceptibility, embitterment, mistrust, trait irritability and verbal trait aggression.[50] This may be linked with the development of maladaptive schemas manifesting as psychological distress.[50] When compared to patients with adult onset of psoriasis, patients with pre-adult onset were also significantly more depressed and socially anxious, and reported higher levels of stigmatisation and negative body image emotions.[51]

Severity of Psoriasis

Some contention exists with regard to the association between disease severity and psychopathological morbidity. This is, in part, due to the different markers employed to gauge disease severity in various studies which may confound possible associations. The use of systemic treatment for psoriasis, the body surface area of involvement, Psoriasis Area Severity Index (PASI) and self-administered PASI have been used as markers of disease severity in different studies.[23,34,45,46,51-54]

It has been suggested that the patient's subjective assessment of severity of his psoriasis plays a significant role in psychopathology, as compared to objective measures. The perception of greater psoriasis severity has been associated with difficulties in emotional regulation, depression and a greater risk of suicidality.[34,51,52]

Surprisingly, when the use of systemic psoriasis treatment was employed as a marker of disease severity, there was no statistically significant difference in suicidality and anxiety between patients with mild and severe psoriasis.[23,53,54] Similarly, body surface area of involvement was not found to be related to psychological distress.[45] There was also no association found between PASI and alexithymia status.[55] One study, however, found a statistically significant increase in the risk of depression in patients on systemic psoriasis therapy, as compared to those who were not.[23] In fact, in a study involving 108 patients with psoriasis, acne and eczema, there was only a modest correlation between self-assessed and clinician-assessed severity measurements.[56] These seem to suggest that while clinician-assessed measurements are useful in assessing response to treatment, patients' self-assessments may be equally valuable in detecting underlying psychopathology.

The use of biologic treatments in patients with moderate to severe psoriasis also raises issues with regard to their safety profile, especially with regard to their psychiatric side-effects. Notably, there were reports of 6 patients with suicide attempts, of which 4 were completed, while on brodalumab, a human anti-interleukin-17 receptor A monoclonal antibody approved by the United States Food and Drug Administration in the treatment of moderate to severe plaque psoriasis.[57] However, the causal association between brodalumab and suicidal ideation and behaviour remains unestablished.[57] A recent study of 8272 patients with moderate to severe psoriasis previously given ustekinumab, infliximab, etanercept, or adalimumab found that biologic therapy was associated with a decreased risk of development of depressive symptoms compared to conventional systemic therapy. Adalimumab was most strongly associated with lower risk, with ustekinumab and infliximab trending towards lower risk but not achieving statistical significance.[58]

Location of Psoriasis Disease

There have been few studies to study the psychological impact of disease location. Different ways of categorising disease involvement, coupled with different outcome measures, also complicate direct comparison. Nail lesions were found to be associated with a large adverse effect on the quality of life,[46] whereas having lesions on the back of hands was found to be related to higher stigmatisation levels.[47] Inverse anatomical distribution of disease was found to be associated with depressive symptoms,[59] and the presence of psoriasis in a sensitive area (hands, scalp, face or genital areas) was found to be related to significantly higher levels of alexithymia.[55]

Conclusion

This review highlights the complex biopsychosocial interactions faced by patients with psoriasis. Given the visible nature of skin lesions, comorbidity and chronicity

in psoriasis, it is unsurprising that there is a significant psychological burden associated with the disease.

The research conducted into the effect of psoriasis on psychosocial aspects of living and vice versa has been extensive. However, the multifaceted aspects of patients' psychological profiles also mean that outside of clearly defined psychiatric diagnoses, many different outcome measures are employed in assessing the association of the disease with the patients' psychological states. This helps physicians and caregivers appreciate the ways that psoriasis impacts the lives of sufferers, yet at the same time may make direct comparison across different studies difficult, especially when there is significant overlap in outcome measures and variation in the way patients are categorised. Future studies could evaluate the role of psoriasis susceptibility genes, which are known to be associated with different phenotypic patterns of disease, in influencing the psychological profile of patients with psoriasis.[60]

Given the intricacy of the psychosocial factors in psoriasis, dermatologists and healthcare providers caring for patients with psoriasis should aid patients in developing strategies to deal with the impact of the disease on their physical, psychological and social well-being.[61] A systematic review found that psychosocial interventions, including cognitive behavioural therapy, psychoeducation, writing exercises, motivational interviewing, hypnosis, meditation and relaxation, demonstrated a small to medium effect on health-related quality of life, depression and anxiety.[62] Adopting motivational interviewing skills, which involves getting patients to compare where they are now with where they wish to be, can help practitioners manage patients holistically and support behavioural change.[63] High quality, theory-based psoriasis materials have proven to be useful to patients by helping them to improve their understanding and sense of control without increasing anxiety.[64] Combined psychology and dermatology services can also benefit this group of patients in providing much-needed support and access to community-based mental health services.[65]

Given the results of this review, we recommend the following: a) Routine and regular screening of patients for psychological distress, anxiety, depression, suicide risk and alcohol use; b) Equipping clinicians with listening and counselling skills; c) Giving patients the opportunities to express their needs, concerns and expectations; d) Referral of patients for appropriate psychosocial interventions, and ideally, a multidisciplinary approach with combined psychology and dermatology services; and e) Emphasis on "at-risk" groups identified i.e. women, younger patients, patients with younger age of onset, high-risk locations of psoriasis involvement. Above all, in their therapeutic approach, clinicians need to acknowledge and value the realities of living with psoriasis.

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