Psychosocial impact of psoriasis: Beyond the skin

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ABSTRACT

Introduction: Psoriasis is a chronic and recurrent dermatological condition characterized by the appearance of red, slightly raised plaques with silvery scales. These plaques feature a sharp edge that distinguishes the affected area from the surrounding normal skin. It is a chronic dermatological condition that can cause feelings of shame, dirt, and untouchability in sufferers, intensified by the fear of isolation and rejection. The relationship between the nervous and immune systems is intertwined, where emotional stress can affect the skin and dermatological conditions can influence the emotional state of the individual. Objective: To explore the psychosocial impact of psoriasis, analyzing its implications for patients' quality of life and well-being, promoting a better understanding and empathetic approach to those living with the condition. Methodology: The study is classified as basic and theoretical research. The literature review was carried out in the search engines Google Scholar, Scopus and Web of Science, using descriptors such as "psoriasis", "emotional health", "psychological impact" and "quality of life". Discussion and Results: The etiology of psoriasis involves complex interactions between the immune system, environmental factors, and genetic predisposition. Studies indicate that dermatological lesions arise due to the release of inflammatory substances, leading to the formation of erythematous-desquamative lesions. Psoriasis is associated with increased cortisol production in response to chronic stress, negatively impacting overall health. The World Health Organization (WHO) recognizes the psychosocial challenges faced by patients, including social stigma and prejudice. Cognitive behavioral therapy is suggested as an effective tool to help patients manage the condition. Additionally, immunobiologicals represent an innovative therapeutic approach for severe or moderate psoriasis, requiring close monitoring due to potential side effects. Final Considerations: Currently, psoriasis has no definitive cure and can manifest itself unexpectedly, causing discomfort. Treatment may involve medications, injections, topical ointments, and dietary changes. However, for many, the skin condition can persist, leading to frustration. Despite being identified as a dysfunction of the immune system, there are still many uncertainties about this disease.

Keywords: Psoriasis, Emotional health, Psychological impact, Immune system, Chronic stress.

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INTRODUCTION

The skin, with its intricate tapestry of sensations and meanings, goes far beyond being just a protective shell of the human body. It is the stage where the most intimate narratives of our existence unfold, a mirror that reflects not only our physical health, but also the emotional and psychosocial contours that shape our identity. In this constant interaction with the world around us, the skin reveals itself as a sensitive screen, capturing the nuances of our emotions and the marks of our interactions. However, when this screen is tainted by diseases such as psoriasis, it can turn into a minefield of vulnerabilities, triggering a whirlwind of feelings ranging from shame and isolation to a desperate search for acceptance and understanding.

The skin, in addition to being the largest organ in the human body and performing vital functions such as protection and thermal regulation, also plays an important role in our self-image. It is a visible expression of our health, emotions, and interactions with the world around us. For many, skin is an essential part of identity, reflecting not only physical health but also emotional and psychosocial aspects.

For those living with psoriasis, a chronic dermatological condition, this relationship with the skin can be even more complex and painful. Psoriasis sufferers often report feelings of shame, dirt, and untouchability, feelings that are intensified by the fear of being isolated and rejected. Suspicion of abandonment and a feeling of exclusion are common, leading to a profound experience of devaluation and inadequacy (Paraiso *et al*., 2021).

This is a two-way street, as the nervous system and the immune system are intrinsically intertwined. Emotional stress can trigger a number of biochemical reactions in the body that affect the skin, while dermatological conditions can influence an individual's emotional and psychological state (Cruvinel; Saturnino, 2023).

The complexity of the relationship between the skin and the human being transcends the mere surface, penetrating the deep domains of neuroscience and immunology. In this multifaceted scenario, the understanding and care of psoriasis emerges as ethical and clinical imperatives.

In this scenario, the repercussion of this theme emerges as an area of growing urgency, since according to the Brazilian Society of Dermatology, the number of Brazilians diagnosed with the disease is in the range of five million (Infinity Pharma, 2020).

A study conducted in Brazil by Janssen in 2023 revealed that the effects of psoriasis go beyond visible skin manifestations, significantly impacting patients' quality of life. The most relevant findings were: approximately 70% of patients reported facing emotional imbalances, including anxiety in 39.7% of cases and depression in 27.1%; 42% of participants were unemployed at the time of the survey; 60% did not engage in regular physical activity, adopting a predominantly sedentary lifestyle; and 37.1% of participants were obese, with 36.4% being overweight. Emotional imbalance,

financial difficulties resulting from unemployment, and a sedentary lifestyle are all factors that can intensify the symptoms of psoriasis. Stress and poor diet can trigger or aggravate flare-ups, exacerbating the inflammation and skin irritation characteristic of the disease (Johnson & Johnson Innovative Medicine, 2023).

Data from the Brazilian Society of Dermatology (2020) indicate that the prevalence of psoriasis in Brazil is 1.31%, being slightly higher in men (1.47%) than in women (1.15%). The prevalence of the disease increases significantly with age: 0.58% in people under 30 years of age, 1.39% between 30 and 60 years of age, and 2.29% in individuals over 60 years of age. The regions of the country also show variations in the prevalence of psoriasis, with higher rates in the South and Southeast regions compared to the Midwest, North and Northeast. In addition, 73.4% of Brazilian patients with moderate to severe psoriasis report impaired health-related quality of life.

Thus, it is imperative that the medical community, health professionals, and society in general recognize and understand the emotional and psychological contours of this condition, seeking more humanized and integrated approaches to care.

Throughout this article, we will explore the psychosocial impact of psoriasis, analyzing its nuances, challenges, and implications for patients' quality of life and well-being. Through this journey, we aim to shed light on the often invisible complexities of this disease, fostering a deeper understanding and a more empathetic approach towards those living with psoriasis.

METHODOLOGY

Considering the directions of Paiva (2019), the present study is categorized as a basic and theoretical research, which seeks to expand scientific knowledge about the relationship between psoriasis and emotional health. This is an exploratory research of a qualitative nature, which is based on concepts and information extracted from the scientific literature.

This work involves a critical and synthetic review of information from relevant published studies on the interaction between psoriasis and emotional well-being. The approach adopted aims to synthesize existing knowledge and provide substantial conclusions about the emotional impacts of psoriasis, as highlighted by Mancini and Sampaio (2007).

To carry out this literature review, strategies were employed, using academic and scientific electronic platforms. Specific terms were used in the search, delimiting the parameters that guided the careful selection of studies and the comprehensive understanding of the existing panorama on the subject. Thus, the search engines Google Scholar, Scopus and Web of Science were explored for the selection of articles, using pertinent descriptors such as "psoriasis", "emotional health", "psychological impact" and "quality of life".

To elucidate complex issues present in the text, we used specific searches on the Google search engine. This method provided access to new sources of knowledge, following an approach based on scientific and epistemological principles. As emphasized by Rozeira et al. (2023), this methodology unveils the beauty of unpredictability, the wit of complexity, and the truth in the journey of discovery. Each new concept unveiled represents a unique piece in the relentless search for discernment. In summary, the assimilation of new concepts proved to be essential to strengthen the structure of this scientific study.

PATHOPHYSIOLOGY

Psoriasis is a chronic inflammatory dermatosis of the skin, characterized by the rapid and intense proliferation of epidermal cells, leading to the formation of erythematous-scaly lesions. Psoriasis lesions consist of overlapping scales, resembling pieces of mica, with a reddish hue. These scales can be easily removed by shaving the affected area. They can vary in size from small spots (guttate) to larger, coin-shaped lesions (nummules), and sometimes group together to form circular figures. Some lesions may lighten in the center, while remaining active at the edges, creating an arching pattern (gyrata) (Guimarães *et al*., 2023).

Understanding the different types of psoriasis and their symptoms is essential for proper diagnosis and treatment. In this context, Table 01 aims to present the main types of psoriasis and their distinct characteristics.

Lesions appear as fissures on the palms of the hands and soles of the feet.

Type of Psoriasis	Description
Vulgar Psoriasis	Lesions of varying sizes, delimited and reddish, with dry, adherent, silvery or grayish scales that appear on the scalp, knees and elbows.
Inverted Psoriasis	Wetter lesions, located in areas of folds such as the scalp, knees and elbows.
Guttate psoriasis	Small localized lesions, in the form of drops, associated with infectious processes. They often appear on the trunk, arms and thighs (very close to the shoulders and hips) and occur more frequently in children and young adults.
Erythrodermic Psoriasis	Generalized lesions on 75% or more of the body.
Nail Psoriasis	Pinpoint depressions or yellowish spots appear mainly on the fingernails.
Arthropic Psoriasis	Associated with joint involvement in around 8% of cases. It appears suddenly with pain in the tips of the fingers and toes or in large joints such as the knee.
pustular psoriasis	Lesions with pus on the feet and hands (localized form) or spread across the body.
Palmoplantar psoriasis	The lesions appear as fissures on the palms of the hands and soles of the feet.

Source: Virtual Health Library of the Ministry of Health (BRASIL, 2016)

This non-contagious condition of unknown origin is widely recognized for its various forms of presentation, with the plaque form being the most prevalent, accounting for approximately 90% of cases (Silveira *et al*., 2017). Visible lesions in various regions of the body can have a significant

impact on patients' lives, limiting their daily activities due to shame, insecurity, and frustration with their own bodies (Šmejkalová *et al.*, 2020; García-Sánchez *et al.*, 2017).

Although lesions are most commonly found on areas such as elbows, knees, and scalp, they can also arise in skin folds, palms, soles of the feet, and fingernails, or present in the form of pus-filled blisters. In addition to cutaneous manifestations, some individuals may develop complications that affect beyond the skin, such as psoriatic arthritis, intestinal changes alternating between constipation and diarrhea, and cardiovascular diseases (Infinity Pharma, 2020). When the disease spreads throughout the body, it is called the entereric form. There are more complex variants, such as arthropathic psoriasis, which affects the joints, and erythrodermic psoriasis (Guimarães *et al*., 2023).

It is known that psoriasis affects both sexes and can occur in all age groups, however studies indicate the average age of onset of the disease at around 33 years, with 75% of cases manifesting before the age of 46 years (World Health Organization (WHO), 2016). In addition, there is evidence of a bimodal onset of the disease, with peaks observed between 16 and 22 years of age and between 57 and 60 years of age (Paraiso *et al*, 2021).

According to Shinjita (2023), psoriasis is a chronic dermatological condition characterized by an abnormal increase in skin cell production, resulting in the formation of red plaques with silvery scales on the skin. The author notes that although the exact cause of this rapid cell growth is still unknown, disorders in the immune system and genetic predisposition are considered important factors. The condition can be triggered or exacerbated by a variety of factors, including minor skin lesions, sun exposure and sunburn, infections such as HIV and streptococcal, certain medications, emotional stress, alcohol consumption, smoking, and obesity.

As far as the interaction between the immune system and the central nervous system (CNS) is concerned, they are interconnected, responding mutually. The CNS captures stimuli and forwards them via nerves or blood circulation to lymphocytes, initiating the immune response. In response to frequent and intense stimuli of stress and anxiety, the immune system is activated, causing T lymphocytes to migrate to the epidermis, releasing pro-inflammatory cytokines, resulting in skin lesions (Paraiso *et al,* 2021).

Cortisol production increases in the face of chronic stress, negatively impacting overall health. It is crucial to address the emotional changes that come with chronic stress, such as anxiety, apathy, and depression. The assistance of specialized professionals, including psychologists, can be vital in addressing these challenges and avoiding negative consequences for emotional well-being and health (Paraiso *et al*, 2021).

It is obvious that the skin reacts to emotional stress in an active way, involving immune cells, hormones and neurotransmitters. These cells regulate inflammation in the skin, exerting pro- and anti-inflammatory effects. Cutaneous responses to stress include the release of cytokines such as

interleukin-6 (IL-6), interleukin-1 (IL-1), and interferon-gamma (IL-γ), as well as the activation of hormones such as peripheral skin corticotropin-releasing hormone (CRH), proopiomelanocortinortin-derived adrenocorticotropic hormone (ACTH), and others (Guimarães *et al*., 2023).

The nervous system also plays a role in the pathogenesis of psoriasis by influencing the immune response through inflammatory mediators. Immune cells express receptors for neurotransmitters and hormones, allowing neurochemical modulation of the immune response. In addition, cytokines released during stress can activate adjacent nerves or access the Central Nervous System (CNS) through blood circulation (Guimarães *et al*., 2023).

It is important to highlight that cutaneous stressors, such as ultraviolet radiation, can stimulate components of the HPA (hypothalamic-pituitary-adrenal) axis of the skin and other active neuropeptides. These neuropeptides can influence brain areas involved in skin-brain communication (Guimarães *et al*., 2023).

Changes in the HPA axis and sympathetic-adrenal-spinal dysfunctions show differences between psoriasis patients and healthy individuals in response to stress. Psoriatic disorders can result in isolation and the development of depressive disorders. Psoriatic skin biopsies reveal increased expression of CRH, a central component in the brain-skin axis (Guimarães *et al*., 2023).

The worsening of psoriatic lesions is related to increased production of inflammatory mediators, potentially contributing to neurotransmitter imbalance and depressive and anxious symptoms. Thus, inadequate regulation of stress signaling pathways can influence the clinical manifestation of psoriasis, requiring multidisciplinary approaches (Marek-Jozefowicz *et al*., 2022; Guimarães *et al*., 2023).

Psoriatic lesions, especially in the hands and feet, are challenging to treat. The presence of pruritus may be an indicator of resistance to treatment. Systemic inflammation and circadian rhythm dysregulation can contribute to peripheral nervous system failures (Marek-Jozefowicz *et al*., 2022).

The precise etiology of psoriasis still remains a mystery, but it is recognized that the disease is multifactorial, involving complex interactions between the immune system, environmental factors, and genetic predisposition. Studies indicate that dermatological lesions may arise due to the release of inflammatory substances by T lymphocytes, leading to the dilation of skin blood vessels and neutrophil infiltration, resulting in an accelerated production of scales due to the immaturity of skin cells (Machado *et al*., 2019).

There are a number of extrinsic factors that can trigger or aggravate psoriasis lesions, including cold weather conditions, infections, and stress. In addition, there are several comorbidities associated with disease severity, such as alcoholism, depression, obesity, diabetes mellitus, hypertension, plurimetabolic syndrome, colitis, and rheumatoid arthritis. These factors contribute to a

significant impact on patients' quality of life, affecting psychosocial aspects, daily activities, and interpersonal relationships (Moscardi *et al*., 2017).

The clinical manifestations of psoriasis are varied and may include the vulgaris form, characterized by dry, erythematous plaques and whitish desquamation; nail psoriasis, which affects the fingernails and toenails; scalp psoriasis, with reddish areas and thick, silvery-white scales; guttate psoriasis, often triggered by bacterial infections such as tonsillitis; and arthropathic psoriasis, which in addition to cutaneous manifestations, can lead to severe psoriatic arthritis with joint pain (Mendes, 2019).

Currently, there is no definitive cure for psoriasis, and treatment is primarily aimed at controlling and reducing the severity of symptoms. Therapeutic options include the use of glucocorticoids, administered both orally and topically, and phototherapies. However, it is important to note that drug treatment is not always effective in controlling symptoms and can result in a significant deterioration in patients' quality of life (Paraiso *et al,* 2021).

According to Gonçalvez (2023), psoriasis is characterized by an alteration in skin cells, being a complex immune-mediated condition. In this context, immune cells play a central role in a problem that affects the entire body. The author states that the body's defense cells induce the dilation of blood vessels, and inflammatory substances, along with other immune cells such as neutrophils and macrophages, migrate to the skin, intensifying the disease. This inflammatory sequence is often interrupted by treatment, highlighting the importance of classifying the patient according to the degree of severity of psoriasis as an initial step in the management of the disease.

Between 5 to 30 percent of people with psoriasis develop psoriatic arthritis, a condition that causes pain and swelling in the joints. Psoriasis can present with sudden exacerbations, often triggered by skin irritations such as mild lesions and severe sunburn, as well as infections such as colds and strep throat. These worsenings are frequent during the winter, after alcohol consumption and in stressful situations. Medications such as antimalarials, lithium, angiotensin-converting enzyme (ACE) inhibitors, terbinafine, interferon alpha, beta-blockers, and tumor necrosis factor inhibitors can also trigger psoriasis flare-ups. Additionally, exacerbations are more prevalent in obese individuals, HIV carriers, or smokers (PorShinjita, 2023).

Medical advances have provided new perspectives in the treatment of psoriasis, focusing on reducing the severity of the lesions and, in some cases, almost completely resolving the disease. In Brazil, a new drug called ixekizumab was recently approved and promises to significantly improve patients' quality of life. However, it is a high-cost treatment, administered by monthly injection and indicated for more severe cases and patients who have not responded to conventional treatment (National Commission for the Incorporation of Technologies in SUS (CONITEC, 2020)).

The complexity of psoriasis is still a mystery in many ways, as it manifests itself in cycles of symptoms that alternate between periods of exacerbation and remission, with its causes still partially unknown. This dermatological condition has a genetic predisposition and is triggered by external stimuli, rather than a single isolated factor.

Psoriasis treatment is personalized, taking into account the clinical, severity, and extent of the disease. Therapeutic options range from topical medications and phototherapy to systemic medications, including both traditional and immunobiological approaches.

Although science does not yet predict a cure, there are numerous treatment possibilities and Coping Strategies, such as (Folha de Londrina, 2023):

1. **Topical Medications**: These are applied directly to the skin and include creams, ointments, lotions, and shampoos. Products such as corticosteroids, vitamin D analogues, and vitamin A analogues help reduce inflammation and peeling of the skin, relieving the symptoms of psoriasis.
2. **Light Therapies** (Phototherapy): Use ultraviolet light to treat psoriasis. Controlled exposure to light can reduce inflammation and peeling of the skin. Therapies such as narrowband UVB and PUVA are examples of available treatments.
3. **Oral or Injectable Medications**: In more severe cases or when other treatments are not effective, medications such as immunosuppressants, retinoids, cytokine inhibitors, and biological agents are used. These help control inflammation and peeling of the skin.
4. **Psychological Support**: Psychology professionals can help patients cope with emotional and psychological issues such as anxiety, depression, and stress, as well as develop strategies to improve quality of life.
5. **Support Groups**: These are safe spaces where patients can share experiences, gain information, and receive emotional support from people facing similar situations.
6. **Healthy Lifestyle**: Adopting healthy habits can help reduce symptoms and improve quality of life. This includes maintaining a balanced diet, exercising regularly, avoiding alcohol and tobacco, managing stress, and maintaining a proper sleep routine.

For Shinjita (2023), systemic treatments for psoriasis derive from medications that act on the entire body or specific systems. They can be administered orally or by injection. Systemic immunosuppressants, such as cyclosporine, mycophenolate mofetil, and methotrexate, suppress the immune system to control psoriasis, but they can compromise the body's ability to fight infections and cause side effects such as hypertension, gastrointestinal problems, bone marrow suppression, and liver damage. Biologic agents, such as etanercept, adalimumab, and infliximab, inhibit immune system chemicals and are given by injection, except for tofacitinib, which is oral. They are effective for severe psoriasis, but can have significant side effects. Biosimilar drugs are also available as

alternatives. For moderate to severe forms of psoriasis and psoriatic arthritis, systemic retinoids such as acitretin and isotretinoin can be used, but they carry risks of serious birth defects and other adverse effects, including changes in triglyceride levels and liver, blood, bone, and capillary problems. Apremilaste is another oral option with more common side effects like nausea and diarrhea.

Patients with psoriasis often face significant challenges in their quality of life, affecting their daily activities, which can limit or even prevent them. It is important to note that the psychological and emotional impact of psoriasis is not necessarily linked to the severity or extent of the disease (Guerreiro, 2018; Scaccabarozzi, 2016).

HEALTH IMPACTS

Brazil recognizes the importance of psoriasis as a chronic and disabling disease, in line with the guidelines established by the World Health Organization (WHO) in 2014. This condition is non-communicable and is characterized by being painful, disfiguring, and currently without a definitive cure. The WHO highlights that the challenges faced by patients go beyond physical symptoms, including social stigma and prejudice, which can aggravate mental health problems (Dantas; Carmo, 2023).

The stigmatization associated with psoriasis often leads affected individuals to avoid social interactions, fearing reactions of rejection or ridicule (Dantas; Carmo, 2023).

In addition, psoriasis has a psychodermatological nature, and is often associated with mental disorders such as anxiety and depression, which can intensify the symptoms of the disease. This vicious cycle of social isolation, triggered by stigma, can result in a deterioration of mental health, further exacerbating the symptoms of psoriasis (Dantas; Carmo, 2023).

The implications of psoriasis go beyond skin manifestations, extending to the emotional, social, and personal spheres of patients. The disease can be the origin of negative feelings, such as fear and frustration, requiring a biopsychosocial and multidisciplinary approach to promote the readaptation and reorganization of daily activities and ensure the integrity of the quality of life of affected individuals (Guerreiro *et al*., 2018; Silva; Faro, 2019).

Psoriasis is closely linked to emotional aspects and can act as a triggering or aggravating factor of the disease. Steiner and Perfeito (2003) point out that physical or emotional stress can influence several dermatological conditions, and is also a stress generator. For dermatologists, it is important to recognize this connection, which is present in many skin diseases, and to evaluate the interaction between emotions, conflicts, and stress in each patient (Silva; Silva, 2007).

According to Lipp (2003), psoriasis and stress are intertwined in several ways. Stressful situations can trigger or aggravate psoriasis lesions, while the lesions themselves can be sources of

emotional stress. The individual perception of stressful events is influenced by each person's subjectivity, which can affect the progression of the disease.

Scientific and practical evidence indicates that modern life, despite offering many features and benefits, also presents significant sources of stress that can negatively impact the well-being and health of the population. In this setting, cognitive-behavioral psychotherapy can be an effective tool to help psoriasis patients better manage their clinical condition. However, in order to adequately address stress, it is essential to understand this response of the body (Silva; Silva, 2007).

Psychological stress arises when a person feels that the demands of the environment are greater than their ability to adapt. In studies on psychological stress, the focus is on environmental events considered excessive for the individual's ability to cope, or on their reactions to these events, such as the perception of stress and resulting negative feelings (Cohen *et al*., 2007).

When subjected to excessive stress, the body faces progressive wear and tear. This prolonged strain can directly influence the onset of diseases and aggravate already existing conditions. Constant interaction with stressors can lead to a state of imbalance, where the body's ability to recover and maintain homeostasis is compromised (Silva; Silva, 2007).

The stress response involves a number of mechanisms that operate at different levels of the body. This response is triggered by psychophysiological changes that occur when individuals are exposed to situations that can cause irritation, fear, confusion, or feelings of happiness. This reaction to stress can manifest itself in a variety of ways, including physical, emotional, and behavioral symptoms (Silva; Silva, 2007).

According to Silva and Silva (2007), in terms of progression, stress can be categorized into several distinct phases. The initial phase is characterized by a state of alertness, where the body immediately reacts to the stressor, showing signs such as increased heart rate, sweating, and muscle tension. As the stressor persists or intensifies, the body enters a resistance phase, where it tries to restore internal balance by utilizing its adaptive reserves. At this stage, symptoms such as memory difficulties, irritability, and excessive fatigue may appear.

However, if exposure to the stressor continues, the body may enter a near-exhaustion phase. At this stage, the body's defenses begin to weaken, leading to oscillations between periods of well-being and moments of discomfort, anxiety, and irritation. This state of vulnerability can intensify the emergence of diseases or aggravate pre-existing conditions (Silva; Silva, 2007).

Finally, the exhaustion phase is reached when the body can no longer maintain a proper balance in the face of persistent and intense stressors. At this advanced stage, physical and emotional symptoms worsen significantly, manifesting as loss of sense of humor, changes in appetite, apathy, depression, and physical exhaustion. This phase highlights the importance of integrated,

multidisciplinary approaches to effectively manage stress and minimize its negative impacts on the individual's overall health and well-being (Silva; Silva, 2007).

Studies have explored the complexity of this condition, seeking to understand the multiple influences that can contribute to its manifestation and progression. Emotional stress, smoking, alcohol consumption, family history, and hormonal changes are just some of the aspects that have been investigated in relation to psoriasis. A cross-sectional study conducted by Xhaja et al. (2014) provided valuable insights into the interaction between these factors and the severity of psoriasis (Exhibit 02). The research covers a wide range of aspects, from the relationship between stress and psoriasis to the impact of the disease on patients' quality of life.

More than 40% of patients felt that psoriasis negatively impacted their quality of life, reflecting the psychosocial challenges associated with the disease. – Influences and Factors Associated with Psoriasis

Influences and Factors	Results
Stress	More than 70% of patients reported that stressful events increased the severity of their psoriasis, indicating a relationship between emotional stress and skin condition.
Smoking	About 60% of men and 20% of women were smokers, suggesting that smoking may be a risk or aggravating factor for psoriasis.
Medicines	Approximately 20% of patients were being treated with one or more of the medications listed in the questionnaire, without a significant association with psoriasis.
Recurrent Infections	About 20% of patients reported recurrent infections, which can influence the severity or recurrence of psoriasis
Alcohol consumption	Approximately 80% of men consumed alcohol, which may have implications for psoriasis, although the exact relationship is not specified
Family history	More than 40% of patients had a relative with psoriasis, suggesting a genetic predisposition to the disease.
Allergies	Only a few patients reported allergies, with no significant association with psoriasis.
Hormonal Changes	About 36% of women indicated that hormonal changes, such as puberty and menopause, exacerbated their psoriasis, highlighting the role of hormones in the condition.
Quality of life	More than 40% of patients felt that psoriasis negatively impacted their quality of life, reflecting the psychosocial challenges associated with the disease.

Source: Xhaja et al. (2014)

In another study conducted by Picardi *et al.* (2005), cited by Porpeta *et al.* (2023), the relationship between stressful events, attachment styles, alexithymia, and perceived social support in patients with psoriasis was investigated. Using methods such as the Paykel Interview for Recent Life Events, the Experiences in Close Relationships questionnaire, the Toronto Alexithymia Scale, and the Multidimensional Scale of Perceived Social Support, the researchers assessed these aspects in comparison to a control group. The results revealed that patients with psoriasis had lower perceived social support, greater attachment-related avoidance, and a higher probability of alexithymia compared to the control group. In addition, the study suggests that alexithymia and poor social support may increase susceptibility to psoriasis exacerbations, possibly due to impaired emotional regulation. This finding underscores the importance of considering psychosocial and emotional factors in the management of psoriasis, indicating that aspects such as social support, attachment

style, and alexithymia may play significant roles in the manifestation and progression of the disease (Porpeta *et al*, 2023).

The study conducted by López-Estebaranz, Sánchez-Carazo and Sulleiro (2016) indicated that the presence of a family history of psoriasis is correlated with a decrease in patients' quality of life, even when the severity of the condition is considered. Although family history did not significantly influence the prevalence of concomitant diseases, its impact was more evident among younger patients. In addition, it has been observed that older patients tend to have a higher number of comorbidities compared to younger patients. This study emphasizes the need to take into account family elements and patients' age when assessing the effects of psoriasis on comorbidities and quality of life. Recognizing these relationships can be key to developing therapeutic approaches and interventions focused on improving the well-being and quality of life of individuals affected by psoriasis (Porpeta *et al*, 2023).

In another study, the impact of stressful life events on the occurrence or worsening of psoriasis and chronic urticaria in patients was investigated. The Gurmeet Singh Presumed Stressful Events Scale was used to assess the stressors experienced by the participants in the year prior to the onset or worsening of dermatological conditions. In the group of patients with psoriasis vulgaris, 26% reported stressful events, the most frequent being financial problems (8%), followed by the death of a close family member (4%), sexual problems and family conflicts (both with 4%), among other events listed, each with 2% of occurrence. In the group with chronic urticaria, 16% of the patients identified stressful events, with the death of a family member being the most common (6%), followed by family conflicts, financial and sexual problems, each with 2% of mentions. These results highlight the influence of psychological stress on the emergence or exacerbation of chronic dermatological conditions. The study suggests that relaxation therapies and stress management programs may play a crucial role in managing these diseases. Psychological interventions can empower patients to reassess and cope more effectively with stressful events, potentially reducing the morbidity associated with psoriasis and chronic urticaria (Malhotra; Mehta, 2008; Porpeta *et al*., 2023).

Based on the reviewed research, it is observed that the origin of psoriasis is linked to a combination of factors, including the patient's autoimmune behavior and genetic predisposition. Additionally, stress plays a significant role in the manifestation of the disease, as reported by patients. Due to the chronic nature of the condition and the associated psychosocial implications, patients face challenges related to personal acceptance and satisfaction, often facing discrimination and prejudice, as mentioned by Cruvinel and Saturnino (2023).

Psoriasis is often associated with an increased risk of anxiety and depression. The constant worry about the disease, the impact on social interactions, and the feeling of isolation can contribute

to the emergence of these disorders. Psychological assistance, whether through individual or group therapy, can be beneficial in managing psoriasis-related anxiety and depression (Remröd *et al*., 2015).

Romiti et al. (2018) sought to assess the clinical severity of plaque psoriasis in the Brazilian population and investigate possible associations with demographic characteristics, lifestyle, health-related quality of life (HRQoL), and work productivity. Using the Psoriasis Area and Severity Index (PASI), Body Surface Area (BSA) and the Dermatology Quality of Life Index (DLQI), it was found that, of the 1125 patients evaluated, 205 (18.2%) had moderate to severe psoriasis. Regression analyses showed that the severity of psoriasis was directly associated with physical inactivity, pain, anxiety, and depression as comorbidities. In addition, there was an inverse association with HRQoL and work productivity. It is noteworthy that cross-sectional studies do not make it possible to assess temporal trends, and observational studies do not establish definitive causality or eliminate possible biases and confounders associated with variables not evaluated (Porpeta *et al.*, 2023; Paraíso *et al.*, 2021).

Psychological factors, such as stress or emotional distress, are often pointed out as triggers or aggravators of psoriasis. These psychological traits can influence perception, interpretation, and ability to cope with stressful situations. In a study conducted by Remröd *et al.* (2015), stress reactivity in patients with psoriasis was investigated. The research aimed to determine whether patients who associate psychological distress with worsening of the disease, called "stress reactors" (SRs), differ psychologically from "non-stress reactors" (NSRs). Of the participants, 64 (63%) identified stress as a trigger for psoriasis exacerbation (SRs). These had significantly higher scores in anxiety, both state and trait, depression, and in five personality traits assessed by the SSP: somatic anxiety, psychic anxiety, susceptibility to stress, lack of assertiveness, and distrust, compared to the NSRs. The perception of stress as a causal element in psoriasis may be related to a more fragile psychological constitution. These findings suggest a valuable opportunity for health professionals to identify and offer additional psychological support to vulnerable patients (Porpeta *et al.*, 2023).

According to Silva (2003), studies indicate that psoriasis can trigger feelings of rejection and stigmatization, affecting patients' daily lives. These feelings can interfere with social adaptation, leading to challenges in the work environment and in social situations such as trips to hairdressers and clubs, as well as influencing the way the patient dresses. The visibility of the lesions and the changes in physical appearance can generate intense feelings of irritation and anguish, making the individual more susceptible to stress.

The patient's ability to adapt, or coping skills, is elementary to deal with the challenges imposed by the disease. Developing effective strategies for managing symptoms can help improve patients' quality of life and emotional well-being.

FINAL THOUGHTS

The complex relationship between emotions and dermatological health reveals the interconnection between the nervous system and the skin, two systems that share a common embryonic origin. The physical manifestation of our emotions, often described by popular expressions such as "nerves on edge" or "purple with rage", has a biological basis that connects stress hormones to skin receptors.

Psoriasis, an autoimmune disease that causes inflammation and peeling of the skin, exemplifies this intricate relationship. The dysregulated immune component in psoriasis is similar to that seen in psychiatric conditions such as depression, indicating a possible connection between these diseases. In addition, situations of heightened emotional stress, such as abuse, violence, or significant loss, can exacerbate dermatological events, reflecting the direct impact of emotions on skin health.

The advent of immunobiologicals represents hope for patients with severe or moderate psoriasis, offering an innovative therapeutic approach that aims to modulate the defective immune response. However, close medical follow-up is important to monitor and manage the potential side effects associated with these medications.

Psoriasis affects a large proportion of patients unsatisfactorily, despite the variety of treatments available. Between 31-70% of patients are not satisfied with existing therapies, highlighting the need for new therapeutic approaches. Currently, treatments are often prescribed without the aid of biomarkers predictors of response, which can result in significant financial and time costs in cases of treatment failure (Brazilian Consensus on Psoriasis, 2020).

Advances in genetics have shown promise in identifying novel therapeutic targets, focusing on specific signaling pathways such as Th1 and Th17, as well as the role of microRNAs in modulating inflammation. These findings suggest the potential of nutrigenomic approaches and new biotechnologies for the treatment of psoriasis (Brazilian Consensus on Psoriasis, 2020).

Several studies are underway to investigate drugs with novel mechanisms, including adenosine A3 receptor agonists, cathepsin inhibitors, and agents that target specific pathways such as STAT3 and retinoic acid receptor. In addition, current research also focuses on improving existing mechanisms, such as PDE4 inhibitors and janus kinases (JAK), with more than 18 drugs under investigation (Brazilian Consensus on Psoriasis, 2020).

In the Brazilian context, the introduction of new drugs, such as JAK inhibitors, tildraquizumab and brodalumab, with different efficacy and safety profiles, is expected. Meanwhile, topical modalities for mild psoriasis are being investigated, including innovative formulations such as cyclosporine and methotrexate microemulsions in gold nanoparticles (Brazilian Psoriasis Consensus, 2020).

In summary, despite significant advances in the treatment of psoriasis, there is still an urgent need to develop more effective, safer, and affordable therapies, as well as predictive biomarkers of response. Continued research and investment in new therapeutic approaches are crucial to improving the management of this complex and multifaceted dermatological condition.

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