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PSYCHIATRIC COMORBIDITIES IN ATOPIC DERMATITIS – A NARRATIVE REVIEW FOCUSING ON DEPRESSION AND ANXIETY

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ABSTRACT

Background: Atopic dermatitis (AD) is a chronic inflammatory skin disease, affecting both children and adults worldwide. Beyond its dermatological manifestations, AD often leads to sleep disturbances, persistent itch, and discomfort, which may contribute to elevated levels of anxiety and depression. The disease's relapsing course and visible skin lesions can further impact social functioning and quality of life, highlighting the need to understand its psychological burden. This review aims to summarize current evidence on the impact of pruritus and sleep disturbances on depression and anxiety in patients with atopic dermatitis, explore potential biological mechanisms, and discuss their effects on patients' quality of life and clinical implications.
Methods: A narrative literature review was conducted using PubMed and Google Scholar, including original studies, population-based analyses, clinical trials, and relevant reviews addressing psychological outcomes in both paediatric and adult populations.
Results: Depression and anxiety are among the most common psychiatric comorbidities in AD, with prevalence estimates showing considerable variability across studies. Their occurrence and severity are closely associated with disease severity, chronic pruritus, and sleep disturbances. Pruritus and sleep disruption emerge as key mediators linking dermatological symptoms with psychological distress. In addition to psychosocial factors such as visible skin lesions and social stigma, biological mechanisms—including immune dysregulation, increased pro-inflammatory cytokine activity, and alterations of the hypothalamic–pituitary–adrenal axis—may contribute to increased vulnerability to mood disorders.
Conclusions: Despite the high prevalence of psychiatric symptoms, mental health assessment remains insufficiently integrated into routine AD care. Early identification and multidisciplinary management are essential. Future research should focus on prospective studies evaluating integrated therapeutic approaches to improve both mental health outcomes and overall quality of life in patients with AD.

KEYWORDS

Atopic Dermatitis, Eczema, Depression, Anxiety, Psychological Impact, Quality of Life

CITATION

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Introduction

Atopic dermatitis is a chronic, relapsing inflammatory skin disease that most commonly manifests in early childhood and is characterized by a multifactorial pathogenesis involving epidermal barrier dysfunction, immune dysregulation, and alterations in the skin microbiome (Langan et al., 2020). It is frequently associated with other atopic diseases such as asthma and allergic rhinitis (Gonzalez-Uribe et al., 2023). AD is one of the most common skin disorder worldwide, affecting around 20% of children and 10% of adults, and its prevalence continues to increase (Carr et al., 2024).

The disease is characterized by diverse cutaneous manifestations, such as erythema, papules, erosions, and vesicles, as well as lichenification and hyperpigmentation, which can affect patients' appearance and contribute to social stigmatization (Langan et al., 2020). Prominent symptoms include persistent pruritus and xerosis, which contribute to sleep disturbances, increased levels of anxiety, and a significant impairment in quality of life (LeBovidge & Schneider, 2025). Beyond its impact on mood, atopic dermatitis can significantly impair social functioning, particularly affecting children's interactions with peers. The condition also affects the psychological well-being of caregivers and parents, and is associated with a considerable economic burden related to treatment (Kelly et al., 2021). In addition to its psychosocial impact, atopic dermatitis has been linked to a range of psychiatric disorders, including depression and anxiety (Courtney & Su, 2024).

This review explores the impact of pruritus and sleep disturbances on depression and anxiety in patients with atopic dermatitis, examines potential biological mechanisms, and discusses their effects on patients' quality of life and clinical implications.

Methodology

This narrative review aimed to summarize current evidence on the relationships between atopic dermatitis, depression, and anxiety. A comprehensive search of the scientific literature was conducted using PubMed, Embase, and Google Scholar, without restrictions on publication date, to capture both earlier and more recent studies. The search strategy included combinations of the following keywords: "atopic dermatitis," "eczema," "depression," "anxiety," "psychological impact," and "quality of life." Only articles published in English were considered. We included original research studies, population-based analyses, clinical trials, and relevant reviews that reported on psychological outcomes in patients with atopic dermatitis. Both pediatric and adult populations were considered. Case reports and other articles deemed irrelevant to the topic were excluded. Studies were selected based on relevance to the topic, following screening of titles and abstracts. The findings from the included studies were summarized narratively. This approach allowed for a broad overview of current knowledge, despite heterogeneity in study populations, methodologies, and publication years.

Results

Depression is one of the most common psychiatric comorbidities in patients with atopic dermatitis, with prevalence estimates ranging from 3% to 57% and a mean of approximately 18% (Fasseeh et al., 2022). It occurs in both adult and adolescent patients, with current evidence suggesting that female patients may carry a comparatively higher risk (Nicholas & Gooderham, 2017). Several factors have been identified as increasing the risk of depressive symptoms in patients with atopic dermatitis. More severe pruritus, a higher number of medical visits, sleep disturbances, and the presence of comorbid asthma are all associated with an elevated risk of depression. In addition, poorer quality of life is closely linked with both more severe depressive symptoms and more intense skin disease, as well as with sleep problems and frequent medical consultations (Liu et al., 2025).

Across the literature, the proportion of atopic dermatitis patients reporting anxiety varies considerably, with estimates ranging from 1.2% to 64% and clustering around an average of approximately 24% (Fasseeh et al., 2022). Among patients with atopic dermatitis, anxiety is more likely to occur in those with lower levels of education, frequent medical consultations, sleep-related problems, and coexisting allergic rhinitis (Liu et al., 2025).

PRURITUS

Pruritus is one of the main symptoms of atopic dermatitis, and its impact on patients' quality of life as well as depressive and anxiety symptoms continues to be widely investigated. Chronic pruritus is present in almost all patients with active atopic dermatitis, with prevalence estimates ranging from 87% to 100% (Legat, 2021).

Results from a study conducted in Wrocław demonstrated a significant association between pruritus intensity and Beck Depression Inventory (BDI) scores: patients with BDI >10 experienced significantly more intense pruritus compared with other participants ($p = 0.004$). Quality of life, assessed with DLQI, was also positively associated with pruritus severity. Moreover, patients with longer pruritus-free periods reported better quality of life (Chrostowska-Plak et al., 2013).

A similar relationship was observed in another study, which found an association between patients' subjective disease assessment using the Scoring Atopic Dermatitis (SCORAD C) scale and depression, suggesting a shared role of both pruritus and sleep disturbances in the development of depression in individuals with atopic dermatitis. Excoriations, secondary skin lesions that frequently occur in atopic dermatitis as a result of scratching pruritic skin, were identified as an independent risk factor for depression. Patients with excoriations had a 3.22-fold higher risk of depression compared with those without such lesions. Excoriations were also found to be an independent risk factor for anxiety disorders (Vinh et al., 2023).

Consistent findings have been reported in studies showing that patients with depression and anxiety exhibit greater disease severity and pruritus intensity, as reflected by higher SCORAD and Visual Analogue Scale (VAS) scores (both $p < 0.0001$). Moderate positive correlations were observed between anxiety and depression scores and clinical parameters of atopic dermatitis, including SCORAD and VAS (all $p < 0.05$), with anxiety severity showing the strongest association with pruritus intensity (Yang et al., 2025).

Several studies have demonstrated a positive correlation between disease severity and depressive and anxiety symptoms (Silverberg, 2019; Kim et al., 2015; Schonmann et al., 2020). However, other authors observed a significant association only for anxiety disorders (Vinh et al., 2023).

SLEEP DISTURBANCES

In addition to persistent pruritus, patients with atopic dermatitis also suffer from sleep disturbances, which frequently co-occur with their dermatological symptoms. Sleep disturbances are commonly reported in individuals with atopic dermatitis, with prevalence estimates ranging from ~47% to 80% in children and ~33% to 90% in adults (Bawany et al., 2021). Both sleep disturbances and sleep-related impairment become more frequent with increasing disease severity (Fishbein et al., 2021).

Children with active atopic dermatitis who also have comorbid asthma or allergic rhinitis appear to be at greater risk of sleep-quality disturbances compared with those with AD alone or without AD (Ramirez et al., 2019). A strong correlation has been observed between pruritus severity and sleep disturbances in these patients ($p = 0.000093$). Sleep disturbance severity has also been significantly associated with poorer quality of life and increased depressive symptoms (both $p < 0.005$) (Talamonti et al., 2021). Chrostowska-Plak et al. similarly confirmed that sleep problems resulting from intense pruritus are linked to reduced quality of life (Chrostowska-Plak et al., 2013). Other studies also indicate that greater itch intensity is associated with an increased risk of sleep disturbances in children with atopic dermatitis (Fishbein et al., 2021).

Further evidence comes from a Taiwanese population-based cross-sectional study examining the relationship between sleep disturbances and mental health in adolescents with atopic dermatitis. Adolescents with AD experienced greater sleep-related difficulties compared with those without the condition. Anxiety in patients with AD was significantly associated with sleep disturbances, including frequent nocturnal awakenings, poor sleep quality, and daytime sleepiness (all $p < 0.01$), and a similar relationship was observed for depressive symptoms (all $p < 0.05$). Moreover, an association between sleep disturbances and symptoms of anxiety and depression was demonstrated in the overall study population, including both healthy individuals and patients with AD ($p < 0.001$). Among different sleep-related problems in children with AD, poor subjective sleep quality showed the strongest correlation with anxiety and depression severity; other sleep parameters, such as frequent night awakenings, daytime sleepiness, and short sleep duration, were also significantly related to anxiety and depressive symptoms (all $p < 0.01$), with sleep duration showing the weakest association (K. H. Lin et al., 2026).

BIOLOGICAL MECHANISMS

The relationship between inflammatory cytokines, HPA axis activity, and psychiatric symptoms has been examined in patients with atopic dermatitis. Yang et al. reported increased serum concentrations of IL-6 and TNF-α in patients with comorbid anxiety and depression compared with controls (both $p < 0.0001$). Both depressive and anxiety symptoms were correlated with IL-6 levels (all $p < 0.05$), whereas only depressive symptom severity was associated with TNF-α concentrations ($p < 0.0001$) (Yang et al., 2025).

Studies indicate correlations between the activity of pro-inflammatory cytokines and the function of the hypothalamic–pituitary–adrenal (HPA) axis. Individuals with atopic dermatitis show impaired HPA axis activity, demonstrated by a lower cortisol increase in response to stress relative to healthy controls (Buske-Kirschbaum et al., 2002). In these patients, prolonged psychosocial stress further modifies HPA function, resulting in a smaller morning cortisol surge and elevated baseline cortisol concentrations. Increased activation of the HPA axis has been associated with elevated levels of cytokines, including TNF-α and interferon γ (IFN-γ), as well as pro-allergic cytokines such as IL-4 and IL-5 (T. K. Lin et al., 2017).

Analysis of HPA axis activity in patients with atopic dermatitis revealed sex- and IgE-dependent differences in cortisol dynamics. Male patients with elevated IgE exhibited higher baseline cortisol levels, although these remained within the normal range. After 10 weeks of treatment, cortisol levels decreased in these individuals, whereas males without elevated IgE showed an increase in cortisol only at week 10. In males with elevated IgE, cortisol levels at week 10 were negatively correlated with depressive symptom scores (HAMD) (Vinnik et al., 2020).

Recent molecular studies have also explored potential genetic factors associated with psychiatric comorbidities in patients with atopic dermatitis. Gene expression analysis identified genes associated with comorbid depression in patients with atopic dermatitis. CHN1 was upregulated and showed positive correlations with both disease severity and depressive symptoms (Wang et al., 2025).

SOCIAL STIGMA

Adolescents with visible eczema in typical body locations exhibited higher levels of anxiety and depressive symptoms compared with those without active skin lesions. A similar association was observed in individuals who had experienced eczema within the previous 12 months. These findings suggest that visible and active skin manifestations have a greater impact on mood disturbances than the mere presence of an atopic dermatitis diagnosis (K. H. Lin et al., 2026).

Given the impact of visible skin lesions on body image and mood, atopic dermatitis appears to also affect patients' sexual health. The prevalence of sexual dysfunction in patients with atopic dermatitis has been reported to range from 6.7% to 57.9% across studies. Sexual dysfunction was more frequently observed in patients with atopic dermatitis compared to healthy controls, although its prevalence appears to be lower than in other dermatological conditions such as psoriasis (Linares-Gonzalez et al., 2021).

Beyond its impact on sexual health, atopic dermatitis is also associated with significant social consequences, particularly in younger populations. Children with atopic dermatitis, due to limited awareness and understanding of their condition among peers, frequently experience verbal, social, and physical bullying, as well as teasing related to their appearance (Kelly et al., 2021).

Atopic dermatitis affects not only children but also their caregivers. Increasing disease severity was associated with worse caregiver quality of life ($p < 0.001$) (Kelly et al., 2021). Mothers of children with atopic dermatitis (AD) more frequently reported symptoms of depression and anxiety compared to the control group ($p < 0.001$). Stress was notably higher among mothers of children with AD than in the control group ($p < 0.001$). Disease severity, itch intensity, and overall disease duration were not generally associated with depression or anxiety symptoms; however, mothers of children who had AD for longer than six months had significantly higher Hospital Anxiety and Depression Scale (HADS) scores. Significant correlations were observed between disease severity and mothers' poorer quality of life, increased stress, and insomnia. Similar significant associations were found for children's itch severity with these same outcomes (all $p < 0.05$) (Kobusiewicz et al., 2023).

Discussion

The present review highlights the link between atopic dermatitis and mental health, with depression and anxiety among the most frequently reported psychiatric comorbidities. Individuals with AD experience a higher prevalence of depressive symptoms and anxiety compared with the general population, with risk increasing alongside disease severity (L.eBovidge & Schneider, 2025)

Importantly, the findings reviewed in this study suggest that the relationship between atopic dermatitis and psychiatric symptoms is multifactorial. The persistent symptoms of AD, particularly pruritus and sleep disturbances, significantly impair daily functioning and may act as key mediators linking dermatological disease activity with psychological distress (Bawany et al., 2021). At the same time, dysregulation of cytokine pathways and potential alterations in stress-related neuroendocrine systems may partly explain the increased vulnerability to mood disorders observed in these patients (Farzanfar et al., 2018).

Furthermore, the visible nature of skin lesions and the resulting social stigma may additionally contribute to emotional difficulties in affected individuals, particularly among adolescents and young adults (K. H. Lin et al., 2026).

IMPACT OF PRURITUS AND SLEEP DISRUPTION

The pathogenesis of pruritus in atopic dermatitis remains under investigation. A damaged epidermis fails to protect against the penetration of allergens and irritants, leading to the release of numerous inflammatory mediators by keratinocytes and Th2 lymphocytes, which initiate the process leading to pruritus (Legat, 2021). Persistent itch results in skin scratching, further impairing the barrier and triggering additional release of inflammatory mediators, thereby exacerbating symptoms and establishing the so-called itch–scratch cycle. Cytokines, like IL-4, IL-13, and IL-31 play a significant role in this process (Mack & Kim, 2018). In contrast, histamine acting through H1 receptors appears to play only a marginal role in AD-related pruritus. Antihistamines show minimal efficacy in reducing itch, with their only observed effect being a mild calming action (Legat, 2021). Research into the pathophysiology of pruritus may be crucial for future therapeutic strategies in AD.

Chronic itch significantly impairs quality of life, disrupts sleep, and is linked to the development of depression and anxiety (Chrostowska-Plak et al., 2013; Yang et al., 2025). Furthermore, the severity of pruritus appears to influence coping strategies in patients with atopic dermatitis, thereby affecting treatment adherence

(Weisshaar et al., 2008). This highlights the need for clinicians to pay close attention to this symptom, as it not only impacts patients' quality of life and mood but also the overall treatment process.

Sleep disturbances are more common in children with atopic dermatitis than in adults. With increasing disease severity, both the prevalence and intensity of sleep disturbances also rise (Bawany et al., 2021). The findings across studies agree that children with active atopic dermatitis suffer from reduced sleep quality, despite having similar nighttime sleep duration as children without the condition This suggests that sleep quality has a greater impact on patients' mental health than sleep duration (Ramirez et al., 2019). A similar pattern has been observed in adults (Bawany et al., 2021.) Patients with AD frequently experience fragmented sleep, early morning awakenings, and difficulty falling asleep. The severity of emotional symptoms appears to increase in proportion to the frequency of sleep disturbances, suggesting a dose–response relationship (K. H. Lin et al., 2026). This highlights the critical role of sleep quality in the psychological well-being of patients with AD. Sleep difficulties emerged as the primary mediator between AD severity and symptoms of depression and anxiety, indicating that the impact of AD on psychological health is largely driven by sleep disturbances rather than by disease severity alone (Salfi et al., 2023).

In adults, these disturbances are associated with increased work absenteeism, daytime fatigue, and more frequent healthcare utilization (Bawany et al., 2021). In children, sleep disturbances are linked to poorer psychological and neurocognitive functioning, including higher levels of depression and anxiety, greater sleep-related impairment, increased inattention, higher impulsivity, behavioural and emotional problems, as well as impaired growth (Bawany et al., 2021; Fishbein et al., 2021).

Importantly, sleep disturbances in children with AD affect the entire family. Up to 60–65% of parents and 63% of siblings report sleep disruption, with this proportion increasing to as much as 86% among parents during disease flares. As a result, sleep disturbances contribute to family exhaustion, interpersonal conflicts, and reduced overall well-being (Bawany et al., 2021).

Evidence also indicates that patients who regularly use sleep medications report better health-related quality of life, and those with the greatest difficulty falling asleep tend to exhibit more severe depressive symptoms, whereas regular use of sleep medications is associated with lower depression scores compared with irregular or non-users (Chrostowska-Plak et al., 2013). These findings underline that targeting sleep disturbances should be a key therapeutic consideration in both children and adults with AD. Beyond standard insomnia treatments, systemic and biologic therapies used in AD may also improve sleep, although this aspect is often assessed as a secondary outcome in clinical studies (Bawany et al., 2021).

INTERPLAY OF IMMUNE AND HORMONAL FACTORS IN MOOD DISTURBANCES

Increasing evidence suggests that biological mechanisms, including immune dysregulation, may contribute to the association between atopic dermatitis and psychiatric disorders (Katamanin et al., 2025). Patients with atopic dermatitis exhibit elevated levels of pro-inflammatory cytokines, particularly IL-6 and TNF-α, which have been detected at higher concentrations in individuals with depressive symptoms, and IL-6 has additionally been reported to be elevated in patients with anxiety. The increased levels of interleukins in atopic dermatitis may be associated with an elevated risk of experiencing depression in these patients (Yang et al., 2025). IL-13 appears to act as a neuromodulator within the central nervous system. Under pathological conditions, however, it may exert cytotoxic effects on both neurons and glial cells, particularly in dopaminergic brain regions such as the ventral tegmental area and substantia nigra, which are involved in mood regulation, potentially increasing the risk of developing depression (Courtney & Su, 2024). Furthermore, elevated cytokine levels may contribute to neuroinflammatory signalling in the brain, influencing microglial activation, neurotransmitter metabolism, and synaptic function, with central inflammation linked to oxidative stress and reduced neurogenesis, particularly in the hippocampus (Farzanfar et al., 2018).

Additionally, the hypothalamic-pituitary-adrenal (HPA) axis and the immune system mutually regulate each other, with pro-inflammatory cytokines such as IL-6 and TNF-α able to stimulate the secretion of ACTH and cortisol. Proper HPA axis reactivity to stress is essential for controlling systemic inflammatory responses. In atopic dermatitis, psychological stress often exacerbates disease activity, further promoting systemic inflammation and potentially leading to excessive HPA activation. Notably, patients with AD exhibit attenuated cortisol and ACTH responses to stress, indicating a dysregulation of the HPA axis. Such dysregulation may not only alter immunological responses but also affect central nervous system function (Farzanfar et al., 2018). Moreover, recent findings suggest that HPA axis regulation in AD is influenced by biological sex and immune status: male patients with elevated IgE demonstrate distinct cortisol dynamics, with negative correlations between cortisol levels and depressive symptom scores, contrasting the elevated cortisol

typically observed in major depressive disorder. These observations support the idea that the pathophysiology of depression in atopic dermatitis may differ from primary depression, potentially involving unique interactions between immune activation, HPA axis dysregulation, and neuroinflammatory mechanisms (Vinnik et al., 2020).

These findings collectively highlight that psychiatric comorbidities in AD may arise not only from the effects of chronic itch and disrupted sleep but also from a complex interplay of immunological and neuroendocrine mechanisms, which can vary according to individual biological factors such as sex and IgE levels.

PSYCHOSOCIAL CONSEQUENCES

Psychosocial consequences represent a major component of illness for up to 85% of patients with skin diseases. Women with skin diseases appear to be more prone to depressive symptoms and psychosocial difficulties. This may partly stem from a greater perceived importance of physical appearance as a component of personal and social value. In addition, societal pressure to conform to ideal standards of beauty may further contribute to the psychological burden of dermatological conditions (Zhang et al., 2019). The visible character of skin lesions in atopic dermatitis may considerably affect patients' quality of life. Such manifestations may contribute to social stigmatization, feelings of rejection, and avoidance behaviours, which can negatively influence social functioning (Marron et al., 2020).

In addition, how patients perceive and cope with atopic dermatitis—particularly regarding itch and flares—can influence both disease management and mental health. Excessive focus on worst-case scenarios, catastrophizing, and avoidance of activities during flare-ups may increase stress and anxiety, contribute to social withdrawal, and further worsen disease-related quality of life (LeBovidge & Schneider, 2025).

The relationship between atopic dermatitis and depression or anxiety has been widely studied; however, the impact of the disease on sexual function remains relatively underexplored. Available evidence suggests that sexual dysfunction may be associated with greater disease severity, lower quality of life, younger age, and the presence of depressive and anxiety symptoms. At the same time, findings remain inconsistent, as some studies do not demonstrate significant differences in sexual health compared with the general population. This highlights the need for further research, particularly given that the impact of sexual health on quality of life may be underestimated, especially among women (Linares-Gonzalez et al., 2021).

Children with atopic dermatitis may experience bullying at school from their peers, which can lead to lowered self-esteem, feelings of embarrassment, a negative self-image, as well as anger and sadness (Radtke et al., 2023). These experiences may negatively affect academic performance and contribute to avoidance of social interactions and physical activities. Adolescents with atopic dermatitis have also been reported to miss more school days and to have fewer close friendships compared to their healthy peers (Kelly et al., 2021). Adults with AD may experience workplace discrimination, which can contribute to increased work absenteeism (LeBovidge & Schneider, 2025).

In addition to the psychosocial impact of AD on patients themselves, the disease can also affect family members and caregivers. Research suggests that caring for a child with atopic dermatitis can place a heavy emotional burden on parents, leaving them feeling drained, frustrated, guilty, and powerless, which may strain family relationships (Kelly et al., 2021). Mothers of children with atopic dermatitis experience a lower quality of life compared with mothers of children with other dermatological conditions, such as psoriasis or vitiligo. The diminished quality of life of mothers is correlated with the duration of the disease, highlighting the significant challenge of caring for these children. Feelings of guilt and the pressure to meet the child's needs may contribute to the development of depressive and anxiety symptoms. Therefore, parents should also receive appropriate support through education, psychological care, stress-coping training, and participation in support groups (Kobusiewicz et al., 2023).

CLINICAL IMPLICATIONS

Taken together, these findings suggest that the psychological burden of atopic dermatitis cannot be attributed to a single factor, but rather results from the interplay of immunological, symptomatic, and psychosocial components of the disease. Recognizing these interconnected mechanisms is essential for understanding the broader impact of AD and for guiding more comprehensive management strategies.

In a survey of US adults with atopic dermatitis and their caregivers, 41.9% of patients had never discussed their mental health with their primary AD provider, and over 50% were never asked about it during any visit. Patients without a primary provider and those with lower income were particularly unlikely to have such conversations. Non-specialist providers were more likely to raise mental health issues. Fewer than half

of participants received a referral to mental health services, and only 56.6% of those referred actually used them. These findings highlight significant gaps in addressing psychological wellbeing in routine AD care (Chatrath et al., 2024).

It is important for healthcare providers to acknowledge the mental health burden of atopic dermatitis and to assess it using validated questionnaires that measure AD-related quality of life as well as symptoms of depression and anxiety. Reduced quality of life, sleep disturbances, depression, and anxiety affect not only patients with AD but also their caregivers, who should not be overlooked in the diagnostic process. Appropriate mental health resources should be made available to both patients and caregivers. One possible approach for patients is cognitive-behavioural therapy adapted to their individual needs, often combined with techniques such as relaxation, mindfulness, acceptance, and habit reversal. This type of therapy may help not only with symptoms of depression and anxiety, but also in managing other challenges associated with atopic dermatitis, including itch, stress, and sleep disturbances (LeBovidge & Schneider, 2025).

Another potential strategy is pharmacological treatment. Therapies used in the management of atopic dermatitis may also contribute to improvements in symptoms of depression and anxiety. Treatment with dupilumab in patients with moderate-to-severe atopic dermatitis leads to rapid and sustained improvement in major disease outcomes, including disease severity, pruritus, and sleep disturbances, as well as symptoms of anxiety and depression.(Miniotti et al., 2022) Studies have also shown that treatment with lebrikizumab can improve symptoms of depression and anxiety in adolescents with atopic dermatitis (Geng et al., 2025). Other biologic therapies and Janus kinase inhibitors used in the treatment of atopic dermatitis have also been investigated for their effects on mood disorders in these patients, showing significant improvements in symptoms of depression and anxiety. Another medication studied was tandospirone citrate, a partial 5-HT1A receptor agonist used to target depression and anxiety, which was also shown to reduce these symptoms in patients with atopic dermatitis (Hartono et al., 2024).

Conclusions

Atopic dermatitis is associated with a substantial psychological burden, with both depression and anxiety frequently reported among affected individuals. Disease severity, chronic pruritus, and sleep disturbances are consistently linked to an increased risk and greater severity of these psychiatric symptoms. Biological mechanisms, including dysregulation of cytokine pathways and HPA axis alterations, interact with psychosocial stressors to exacerbate mental health outcomes. Importantly, despite the high prevalence of depressive and anxiety symptoms in patients with AD, routine screening and early detection remain insufficient, and many patients do not receive timely mental health assessment or appropriate intervention.

These findings underscore the need for clinicians to incorporate validated psychological assessments into standard AD care, addressing both patient and caregiver well-being. Future research should focus on prospective studies to identify effective strategies for early detection, prevention, and treatment of psychiatric comorbidities in AD, including the evaluation of integrative approaches combining dermatological, pharmacological, and psychological interventions. Such efforts may improve not only mental health outcomes but also overall disease management and quality of life for patients and their families.

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