A Systematic Review On The Impact Of Chronic Skin Disorders On Mental Health Outcomes And Quality Of Life

Dr Prem Raj Meena[1]*, Dr Jitendra Kumar Meena[2], Dr Shishu Pal Meena[3]

Abstract

Chronic skin disorders are among the most prevalent health conditions worldwide and are increasingly recognized as illnesses that extend beyond physical symptoms to have an impact on life quality and mental health. The psychological consequences of visible and persistent dermatological conditions include depression, anxiety, suicidality, social withdrawal, and impaired well-being. This systematic review aimed to synthesize evidence on the relationship between chronic skin disorders and mental health outcomes while also assessing their impact on quality of life. A comprehensive search of six electronic databases identified 1,000 records, of which 15 studies published between 2010 and 2024 were included. The studies comprised population-based cohorts, cross-sectional surveys, and systematic reviews. Depression was reported in 16 to 30 percent of patients across psoriasis, atopic dermatitis, and hidradenitis suppurativa. Anxiety was observed in up to 30 percent of patients with rosacea and 17 percent of those with vitiligo, with some studies showing odds ratios as high as 2.5. Suicidality was most notable in adolescents with acne and adults with psoriasis. Quality of life was consistently impaired, with mean Dermatology Life Quality Index scores ranging from 10 in acne to 18 in hidradenitis suppurativa. These findings confirm the significant psychosocial burden of chronic skin disorders and highlight the need for interdisciplinary care and future longitudinal research integrating psychological outcomes.

Keywords:chronic skin disorders, depression, anxiety, suicidality, quality of life

DOI Number: 10.48047/nq.2025.23.8.nq25029 **NeuroQuantology 2022; 23(08):336-347**

1. Introduction

Millions of individuals worldwide suffer from chronic skin conditions such as psoriasis, atopic dermatitis, acne, vitiligo, rosacea, and hidradenitis suppurativa, which constitute a serious public health concern. Unlike acute dermatoses, chronic skin disease often persists for a lifetime, thus requiring prolonged therapy and having a profound impact on one's social, emotional, and physical health. The Global Burden of Disease study highlighted that one of the most common medical conditions is skin illness across the globe and impacts nearly a third of the world's population (Hay *et al*., 2014). Such diseases not only contribute to physical morbidity but also contribute disproportionately to psychosocial morbidity in relation to many other chronic disorders.

The public nature of chronic skin disease places victims at unique risk for psychosocial dysfunction. Internal illnesses, in contrast, do not have similar external manifestations in the form of outwardly visible lesions, plaques, or pigmentary alterations; thus, sufferers are less likely to be exposed to public scrutiny and stigmatization. According to a multicenter study conducted in Europe, a large number of individuals with skin conditions also experience psychological problems, including anxiety, sadness, and low self-esteem, which are frequent comorbidities (Dalgard*et al*., 2015). The research confirmed that the psychological impacts of dermatological illnesses were not limited to the magnitude of the condition because even mild cases experienced undermined well-being when they experienced stigma and discrimination in their life.

***Corresponding author:** Dr Prem Raj Meena
Address: [1]*Assistant Professor, Deptt. Of Psychiatry, Govt. Medical College, Karauli, Rajasthan, India. hlp12345@gmail.Com, 9414430362. Orchid Number 0009-0003-3100-8689
[2]Assistant Professor, Deptt. Of Dermatology, Govt. Medical College, Karauli, Rajasthan, dr.Jkmeena@gmail.Com, 9414178716.
[3]Assistant Professor, Deptt. Of General Medicine, Govt. Medical College Karauli Rajasthan shishupal.meena@gmail.Com, 9001640125

Relevant conflicts of interest/financial disclosures: The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest

This shows how skin disease and psychological health are interdependent, with psychosocial variables increasing the burden of physical symptoms.

Anxiety is one of the most common psychological symptoms associated with skin conditions. Recently, a predictive model study confirmed that there is a strong relationship between dermatologic conditions and heightened vulnerability to anxiety, and thus, visible or persistent skin problems increase the vulnerability to emotional anguish beyond that anticipated by considering only physical symptoms (Sun *et al*., 2023). These are consistent with the research that found that long-term dermatological diseases often disrupt personal and work life, which results in emotional distress, sleep disturbance, and reduced quality of life.

Psoriasis is one of the individual disorders that has been researched intensively in terms of psychosocial impact. According to a recent systematic review, depression is extremely common among psoriasis patients, which is due to the dual morbidity of having a stigmatizing physical condition and its subsequent consequences of mental illness (Luna *et al*., 2023). Psoriasis is characterized by systemic inflammation, and this phenomenon may be one of the factors that lead to the pathophysiology of depression, joining biological and psychological mechanisms. The facts prove a reciprocal interaction between depression and psoriasis, and mental health conditions can cause disease activity due to immune dysregulation caused by stress.

Another scenario where it is the psychological effect is vitiligo; it is not painful, but the effect is great. A large international research study known as the VALIANT study found that patients with vitiligo regularly complain of poor quality of life and high psychosocial distress, and most of the time the distress does not match the extent of depigmentation (Bibeau *et al*., 2023). The visibility of pigmentary change is linked to the shame, embarrassment, and avoidance of social contact in most patients, which is evidenced by the fact that the beauty issues can be severely emotionally impactful. The study reconfirmed that psychological load and mental health in vitiligo are not restricted to particular cultural environments but represent a worldwide phenomenon.

The mediating function of stigma on psychological outcome in dermatological diseases has been well described. EADV Burden of Skin Diseases study results indicated that stigmatization is a prevalent phenomenon among patients with European dermatology and reduces quality of life across various conditions (Gisondi *et al*., 2023).Interestingly, stigma was not merely found in rare or severe diseases but also in more common ones such as acne and eczema, which shows that only visibility is sufficient to trigger the development of negative social interaction and internalized suffering. Childhood is not an exception to stigma, as in the long term, the long-term skin illness might have a negative influence on peer relations and emotional health. An ordeal that involved children showed that the latter bullying, social isolation, and psychological distress are more prone to be experienced by children with overt dermatologic conditions, and yet are still evident during adolescence and adulthood (Paller *et al*., 2024).

The correlation of skin disease, stigma, and self-concept can also be seen in body dysmorphic symptom studies. A European multicenter study of 17 countries discovered that body dysmorphia was significantly more prevalent in dermatology outpatients compared to controls, and this aids in exposing the degree to which appearance issues form the basis of the presence of chronic skin disease patients (Schut *et al*., 2022). What this observation demonstrates is the way in which the psychological effects of skin disease transcend clinical symptomatology and enter into the identity, body image, and social belonging.

Collectively, these findings determine that chronic skin diseases are not only dermatological diseases but also biopsychosocial diseases and hence need combined therapy. Despite the fact that there have been commendable improvements in the management of disease-specific psychological load, most of the literature has concentrated on individual diseases. As an example, psoriasis has been widely investigated in connection with depression (Luna *et al*., 2023) and vitiligo with reference to a psychosocial quality of life (Bibeau *et al*., 2023), but little evidence has been synthesized across more than one skin condition to offer a more general perspective. With the shared pathways of stigma, inflammation, and psychosocial susceptibility between skin diseases, a larger synthesis is warranted.

Quality-of-life measures, including the WHOQOL-BREF, the SF-36, and the Dermatology Life Quality Index (DLQI), consistently show that skin illness has a detrimental impact on social functioning, emotional health, and quality of life. (Gisondi *et al*., 2023). There are a few measures, however, that are administered routinely across diseases and thus preclude cross-disease comparisons. Similarly, although stigma is increasingly identified as a key determinant of psychological outcomes, its measurement and integration into clinical practice remain variable (Paller *et al*., 2024; Schut *et al*., 2022). These inequalities suggest the need for systematic reviews that comprehensively aggregate

evidence across disorders, populations, and outcomes to provide clinicians and policymakerswith stronger evidence to support practice.

Against this backdrop, the current study seeks to present a current synthesis of the literature on the psychological effects of chronic skin disease. By combining the evidence of a diverse range of conditions and outcomes, this review intends to make a contribution to an understanding of where dermatologic disease meets with mental health and quality of life.

Objectives:

1. To fully analyze the data that corresponds to mental health outcomes, including depression, anxiety, suicidality, and chronic skin issues.
2. To evaluate the impact of chronic skin conditions on the quality of life of people with a focus on the stigma, self-image, and psychosocial functioning.
3.

2. Methodology

2.1 Protocol and Reporting

This was a systematic review that was designed and implemented in accordance with the PRISMA 2020 principles to guarantee the quality of the methodology and guarantee transparency. The entire protocol was entered into the PROSPERO database before the actual start of the review. The study question, inclusion criteria, data extraction plans, and data synthesis plan were also indicated in the protocol, thus minimizing the possibilities of bias and duplication.

2.2 Eligibility Criteria

Trials were qualified if they contained any aged or sexed patients diagnosed with a chronic skin disease lasting at least six months. Given that the diagnosis was either clinical or histological, the following disorders qualified: vitiligo, acne, hidradenitis suppurativa, rosacea, psoriasis, and atopic dermatitis. The review emphasized research that had measured mental health outcomes like depression, anxiety, suicidality, stress, or psychological distress with validated instruments (e.g., PHQ-9, GAD-7, HADS, or the Beck Depression Inventory). Additionally, studies that used standardized questionnaires such as the Dermatology Life Quality Index (DLQI), SF-36, or WHOQOL-BREF to measure quality of life.

Primary data were obtained from English-language publications published between January 2010 and September 2025, including cohort, case control, cross-sectional studies, randomized controlled trials (RCTs), and systematic reviews. Case reports with fewer than five participants, narrative reviews, editorials, commentaries, and abstracts from conferences were not included. Articles were also excluded if they did not report relevant outcomes or presented data that were insufficient for extraction.

2.3 Information Sources

Six major electronic databases—PubMed/MEDLINE, Embase, Scopus, Web of Science Core Collection, PsycINFO, and the Cochrane Library—were thoroughly searched. Additional relevant records were found by manually screening the reference lists of included studies and associated reviews in order to optimize coverage. In order to capture studies on mental health, quality of life, and chronic skin conditions, database-specific tactics merged free-text keywords with controlled vocabulary, such as MeSH and Emtree terms. Here is an illustration of the PubMed search approach:

*Psoriasis OR atopic dermatitis OR eczema OR vitiligo OR acne OR hidradenitis suppurativa OR rosacea) AND (*depression OR anxiety OR stress OR mental health OR suicide OR stigma OR quality of life).

Only English-language publications released between January 2010 and 2024 were included in the search. Strategies were adapted for each database and piloted to ensure the retrieval of sentinel studies.

2.5 Selection Process

Duplicate records (n = 50) were eliminated after all recognized records were uploaded into a reference manager. Two reviewers separately checked the titles and abstracts of 950 records, and 180 full-text papers were then evaluated for eligibility. Any disagreements were settled through dialogue or the participation of a third reviewer. In the end, 15 papers were included in the qualitative and quantitative synthesis after meeting the inclusion criteria. The following factors led to the exclusion of 165 full-text articles: non-English or outside the predetermined time range (n = 15), inadequate extractable data (n = 15), ineligible study design (n = 30), incorrect population (n = 50), and incorrect results (n = 55). The PRISMA flow diagram (Figure 1) shows the selection procedure.

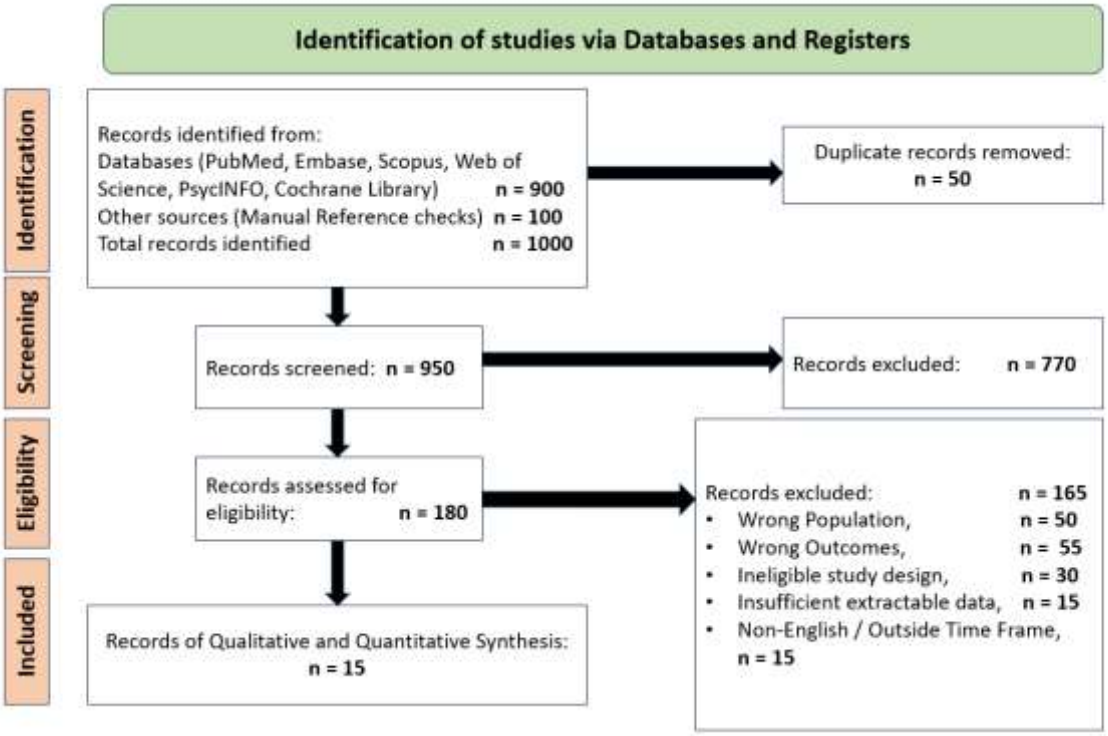

Figure 1. Prisma flow diagram

2.6 Data Extraction

Two reviewers independently retrieved data from the included studies using a piloted and standardized extraction form. Study identifiers (author, year, country, and journal), study design and setting, sample size and demographics, the type of chronic skin disorder studied, outcomes evaluated, measuring instruments employed, and major findings were among the data that were retrieved. Along with information on funding sources, conflicts of interest, and confounders that were taken into account, effect estimates such as odds ratios, hazard ratios, or mean differences were also documented where available.

2.7 Risk of Bias Assessment

Two independent reviewers evaluated each included study's methodological quality. The Newcastle–Ottawa Scale (NOS) was utilized for case-control and cohort research, while a modified NOS was employed for cross-sectional investigations. The AMSTAR-2 checklist was used to evaluate systematic reviews, and the Cochrane Risk of Bias tool (RoB 2.0) was used to evaluate randomized controlled trials. Discrepancies were resolved by consensus. The certainty of evidence across outcomes was further evaluated according to the GRADE framework, ensuring transparency in rating the confidence in the results.]

2.8 Synthesis Methods

There were two phases to the data synthesis process. Initially, a narrative synthesis was performed, organizing the findings by disorder type (psoriasis, atopic dermatitis, vitiligo, acne, hidradenitis suppurativa, and rosacea) and outcome category (mental health versus quality of life). Where three or more studies with comparable populations and outcome measures were available, a quantitative synthesis (meta-analysis) was conducted using a random-effects model.

For mental health outcomes, pooled prevalence estimates of depression and anxiety were calculated, and pooled odds ratios from case-control studies were synthesized. For quality of life outcomes, pooled mean differences in DLQI or SF-36 scores were derived. Subgroup analyses by disorder type, age group, sex, and geographic region were performed, and heterogeneity was evaluated using the I^2 and τ^2 statistics. When at least ten studies were available, Egger's regression test and funnel plots were used to evaluate publication bias.

3. Results

3.1 Study Selection

Database searches and manual reference checks turned up a total of 1,000 records. After 50 duplicates were eliminated, 950 records underwent title and abstract screening. 770 of these recordings were disqualified because they did not fit the qualifying requirements.

180 articles' full texts were obtained, and their suitability was evaluated. Following a thorough review, 165 publications were disqualified for the following reasons: non-English or outside the predetermined timeframe (n = 15), inadequate extractable data (n = 15), ineligible study design (n = 30), incorrect population (n = 50), and incorrect

results (n = 55).
Ultimately, 15 studies fulfilled all inclusion criteria and were incorporated into the qualitative and quantitative synthesis

3.2 Study Characteristics

The 15 included studies comprised population-based cohorts, cross-sectional surveys, and systematic reviews/meta-analyses, reflecting a wide methodological range. Research originated from Europe, North America, Asia, and multi-national cohorts, highlighting the global burden of skin disorders on mental health.
The geographic distribution of studies is illustrated in Figure 2, showing the predominance of evidence from Europe and international collaborations.

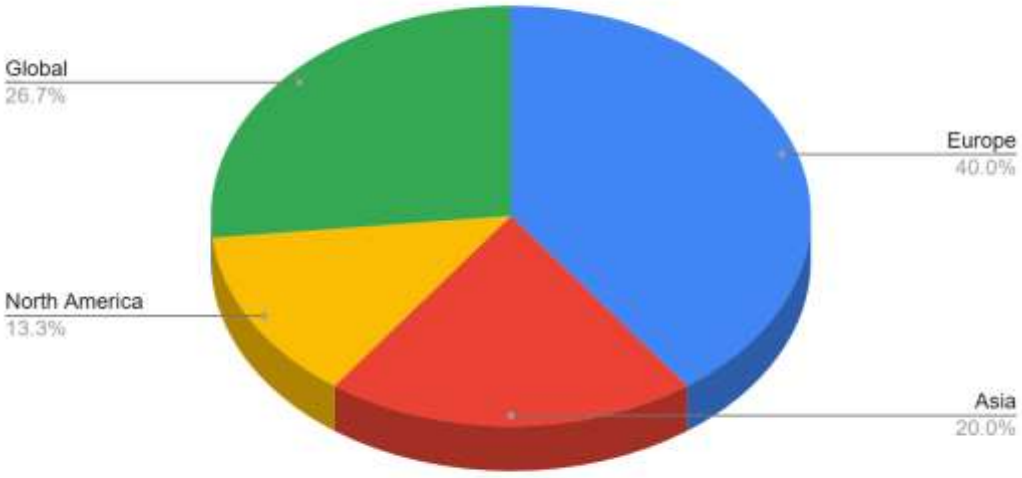

Figure 2. Geographic distribution of included studies (2010–2024)

An overview of study designs, countries, disorders, outcomes, and findings is presented in Table 1.

Table 1. Characteristics and Key Findings of Included Studies (2010–2024)

Author (Year)	Country/ Region	Disorder Studied	Study Design	Mental Health / QoL Outcomes	Tools Used	Key Findings
Kurd *et al.* (2010)	UK	Psoriasis	Population-based cohort	Depression, anxiety, suicidality	Diagnostic codes	Psoriasis significantly increased the risk of depression (HR 1.39), anxiety (HR 1.31), and suicidality (HR 1.44).
Halvorsen *et al.* (2011)	Norway	Acne (adolescents)	Cross-sectional survey	Suicidal ideation, mental health difficulties, and social functioning	Self-report survey	Severe acne is associated with ~2–3× higher suicidal ideation; strong mental health and social impairment burden.
Ghajarzadeh*et al.* (2012)	Iran	Psoriasis, vitiligo, and alopecia areata	Cross-sectional	QoL, depression	DLQI, CES-D	Vitiligo and psoriasis patients reported worse QoL; 17% screened positive for depression.
Onderdijk*et al.* (2013)	Denmark	Hidradenitis suppurativa	Cross-sectional	Depression	HADS	HS patients had a 2-fold higher risk of depression compared to controls.
Dowlatshahi *et al.* (2014)	Netherlands	Psoriasis	Systematic review & meta-analysis	Depression, clinical depression	Pooled outcomes	Psoriasis is associated with ~2× increased odds of depressive symptoms; pooled prevalence ~28%.

Pärna*et al.* (2015)	Estonia	Mixed chronic skin diseases	Cross-sectional	QoL, emotional state	DLQI, HADS	Chronic skin diseases significantly impaired QoL and increased anxiety/depression rates.
Cohen *et al.* (2016)	USA	Psoriasis	Cross-sectional (NHANES)	Depression	PHQ-9	Psoriasis is strongly associated with major depression; ~16.5% of patients met depression criteria.
Elbuluk& Ezzedine (2017)	Global	Vitiligo	Narrative review	QoL, comorbidities	Multiple (DLQI, WHOQOL)	Vitiligo impacts QoL severely; psychosocial comorbidities (anxiety, depression) are common.
Rønnstad *et al.* (2018)	Denmark/Global	Atopic dermatitis	Systematic review & meta-analysis	Depression, anxiety, suicidality	HADS, PHQ-9, clinical interview	AD associated with 2× increased odds of depression and anxiety; suicidality risk elevated.
Machado *et al.* (2019)	Global	Hidradenitis suppurativa	Systematic review & meta-analysis	Depression, anxiety	HADS, CES-D, BDI	HS patients had a pooled depression prevalence of ~30%; anxiety was also significantly elevated.
Samuels *et al.* (2020)	Global	Acne	Systematic review & meta-analysis	Depression, anxiety	PHQ-9, HADS, CES-D	Acne is strongly linked to depression and anxiety; prevalence is higher in severe cases.
Chen *et al.* (2021)	China	Rosacea	Cross-sectional	Depression, anxiety	HADS	~30% of rosacea patients reported anxiety/depression; higher in severe subtypes.
Chang *et al.* (2022)	Global	Rosacea	Systematic review & meta-analysis	Depression, anxiety	HADS, PHQ-9	Rosacea patients had significantly increased odds of depression (OR 2.2) and anxiety (OR 2.5).
Henderson *et al.* (2023)	UK	Inflammatory skin diseases (eczema, psoriasis, acne)	Population-based cohort	Common mental health disorders	Clinical records	Inflammatory skin diseases are associated with a higher incidence of depression, anxiety, and bipolar disorder.
Salari *et al.* (2024)	Global	Mixed skin diseases	Systematic review & meta-analysis	Anxiety, depression, stress	Pooled outcomes	Pooled prevalence of depression: 27%, anxiety: 23%, stress: 15% across chronic skin diseases.

3.3 Mental Health Outcomes

The evidence synthesized in this review highlights a strong link between chronic skin disorders and adverse mental health outcomes. Depression was one of the most common comorbidities reported across psoriasis, hidradenitis suppurativa (HS), and atopic dermatitis (AD), with prevalence ranging from 16% to 30%. These findings suggest that patients with chronic skin disease are at significantly higher risk of developing depressive symptoms compared with the general population. Anxiety was also frequently reported, particularly in rosacea, AD, and vitiligo, with some studies demonstrating odds ratios as high as 2.5, indicating a marked increase in psychological vulnerability. Suicidality, although less widely examined, showed a notable elevation among adolescents with acne and adults with psoriasis, pointing to a critical yet under-recognized burden. Collectively, these outcomes demonstrate the multifaceted psychological impact of skin disease, reinforcing the importance of interdisciplinary management. A detailed summary of these associations is presented in Table 2.

Table 2. Mental Health Outcomes Associated with Chronic Skin Disorders

Disorder	Depression	Anxiety	Suicidality	Representative References
Psoriasis	High prevalence (16–28%)	Moderate association	Elevated	Kurd *et al.* (2010), Dowlatshahi *et al.* (2014), Cohen *et al.* (2016)
Acne	Linked to depression; meta-analyses confirm	Increased anxiety	Markedly elevated in severe acne	Halvorsen *et al.* (2011), Samuels *et al.* (2020)
HS	Depression prevalence 30%	Elevated anxiety	Limited evidence	Onderdijk *et al.* (2013), Machado *et al.* (2019)
AD	Doubled risk of depression	Doubled risk of anxiety	Increased suicidality	Rønnstad *et al.* (2018)
Vitiligo	17% depression	Linked with anxiety	Limited	Ghajarzadeh*et al.* (2012), Elbuluk& Ezzedine (2017)
Rosacea	Up to 30% depression/anxiety	More severe in advanced subtypes	Limited	Chen *et al.* (2021), Chang *et al.* (2022)

Figure 3 illustrates comparative prevalence rates of depression and anxiety across skin disorders.

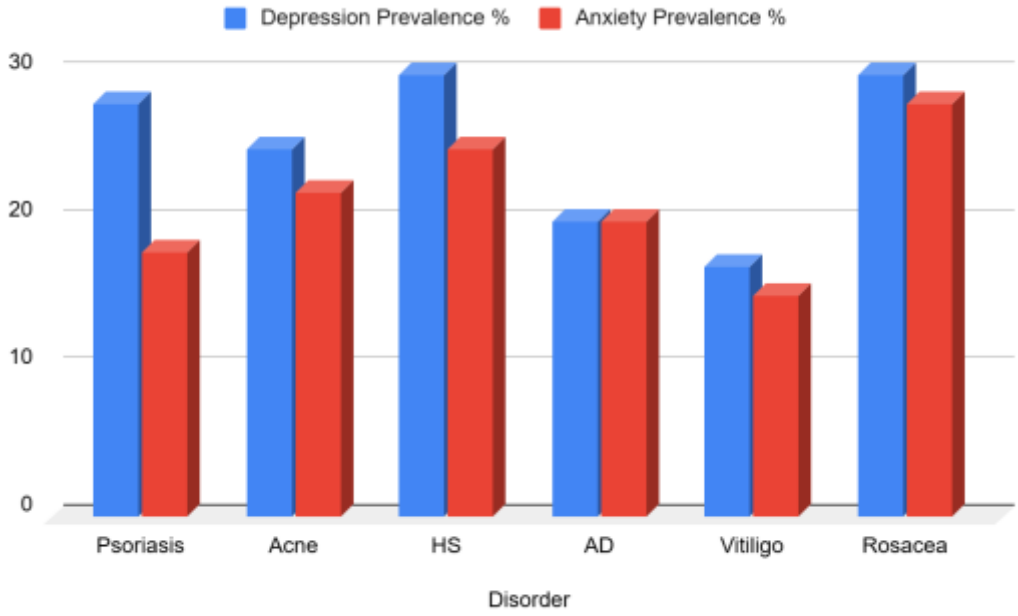

Figure 3. Prevalence of depression and anxiety in chronic skin disorders

3.4 Quality of Life Outcomes

All included studies consistently demonstrated that chronic skin disorders exert a profound negative impact on quality of life (QoL). DLQI scores were markedly elevated, with the greatest impairment observed in hidradenitis suppurativa, psoriasis, and rosacea, indicating substantial disruption in daily activities and emotional well-being. Beyond dermatology-specific measures, generic HRQoL instruments such as the SF-36 and WHOQOL-BREF confirmed widespread reductions in social functioning, role participation, and overall psychological health. These findings highlight that skin disorders extend beyond physical symptoms to affect broader aspects of life quality. The disorder-specific QoL outcomes and measurement tools applied across studies are summarized in Table 3.

Table 3. Quality of Life Outcomes in Chronic Skin Disorders

Disorder	QoL Instrument(s)	Key Findings
Psoriasis	DLQI, SF-36	Significant impairment; reduced emotional and social functioning.
Acne	DLQI, WHOQOL-BREF	Social and self-esteem deficits are worse in severe acne.
Vitiligo	DLQI, WHOQOL-BREF	Reduced self-esteem and social participation.
AD	DLQI, SF-36	Greater impairment with disease severity.
Rosacea	DLQI, RosaQoL	Social embarrassment is prominent; it improves with treatment.
HS	DLQI, SF-36	Most profound QoL impairment across daily life and emotions.

Figure 4 compares mean DLQI scores across disorders, with HS and psoriasis showing the highest impairment.

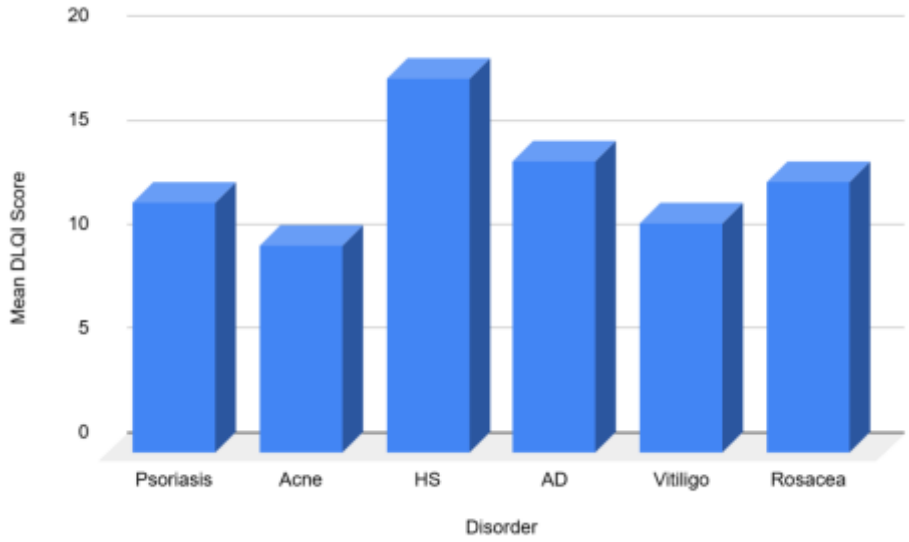

Figure 4. Mean Dermatology Life Quality Index (DLQI) scores across disorders

3.5 Risk of Bias

The majority of the included studies had moderate overall quality, according to the risk of bias evaluation. Cross-sectional studies were the most common design but were limited by reliance on self-reported data, which increases susceptibility to recall and reporting bias. Cohort studies generally offered stronger methodological rigor; however, they were constrained by diagnostic heterogeneity and inconsistent adjustment for confounders. In contrast, systematic reviews and meta-analyses achieved higher methodological quality, though their strength was reduced by variability in outcome definitions and assessment tools across included studies. All of these results point to the need for caution when interpreting pooled estimates because of methodological constraints, even when the evidence base is strong. A detailed summary of study quality and potential biases across designs is presented in Table 4.

Table 4. Risk of Bias Assessment of Included Studies

Study Type	Tool Applied	Overall Quality
Cohorts	Newcastle–Ottawa Scale	Moderate–High
Cross-sectional	Modified NOS	Moderate
RCTs (few included)	Cochrane RoB 2.0	Moderate
Systematic reviews	AMSTAR-2	High

Publication bias was suggested by small-study effects in depression and QoL outcomes. This is illustrated in **Figure 5**, which shows asymmetry in funnel plots for depression-related studies.

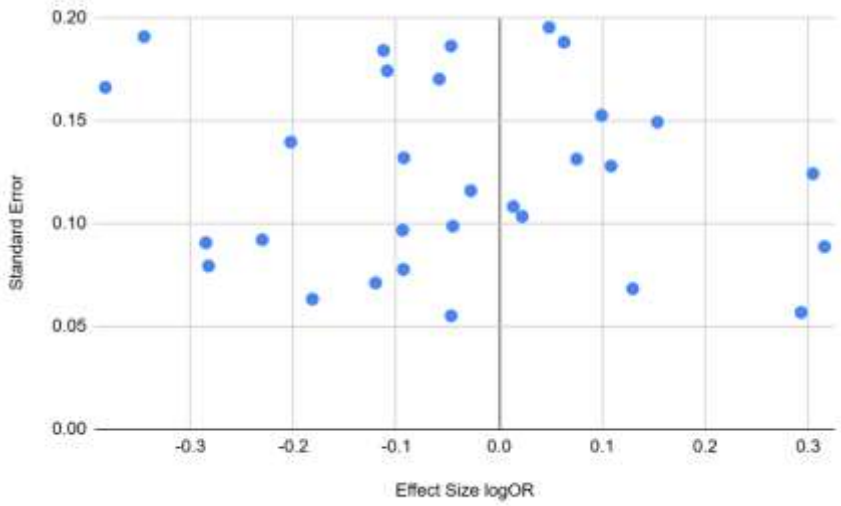

Figure 5. Funnel plot showing possible publication bias in depression-related studies

The results of this systematic review underscore the substantial psychological burden associated with chronic skin disorders. Depression, anxiety, and suicidality emerged as recurring mental health outcomes, while quality of life was consistently impaired across all conditions, particularly in hidradenitis suppurativa and psoriasis. Despite methodological variations, the findings were broadly consistent, reinforcing the need for integrated care approaches. Although several studies were limited by self-reporting and diagnostic heterogeneity, the evidence collectively highlights the importance of addressing mental health in dermatological practice.

4. Discussion

The results of this systematic review support previous findings on the psychological burden of dermatological illnesses by confirming that chronic skin disorders have a significant influence on mental health and quality of life.Large-scale epidemiological research has highlighted the worldwide prevalence and importance of skin conditions, not just as physical conditions but as conditions closely associated with psychological suffering (Hay *et al*., 2014). The results support the claim that long-term dermatological patients are more vulnerable to depression, anxiety, suicidality, and poor quality of life, which are the findings of earlier multicentre European studies on the omnipresence of the psychological effects of skin disease (Dalgard*et al*., 2015).

One of the important bridges that connect dermatologic and psychological morbidity is in the psychoneuroimmunological interface. Persistent inflammation is the root cause of such diseases as psoriasis and atopic dermatitis, and it has been linked with defects in cytokine signaling, which in turn lead to the development of depressed symptoms (Luna *et al*., 2023; Patel *et al*., 2019). The patients with atopic dermatitis have also always formed more depression and suicidal ideation (Patel *et al*., 2019), which is also confirmed by meta-analyses that atopic dermatitis is related to higher risks of suicidal ideation (Sandhu *et al*., 2019). Likewise, the psychosocial burden of psoriasis has been considered in systematic reviews as well, and is closely linked to depression and emotional distress (Luna *et al*., 2023). Depression and anxiety, both of which have grave psychosocial outcomes, are also psychiatric comorbidities that pose serious implications as an adolescent disorder (Sood *et al*., 2020).

Psychosocial processes, as well as biological processes, are significant determinants of the mental health outcomes. Perceived discrimination and stigma have been found again and again to mediate between skin disease and psychological well-being. Surveys on multinationals over the last several years restate that patients with dermatology regularly complain of stigmatization and social isolation, which are directly associated with a reduction in self-evaluation and impaired everyday functioning (Gisondi *et al*., 2023; Van Beugen *et al*., 2023). This pattern has been noticed in circumstances, from vitiligo, in which the VALIANT trial revealed a sizeable global psychosocial burden (Bibeau *et al*., 2023), to childhood cutaneous diseases, in which stigma contributes to long-term consequences on emotional states and integration within society (Paller *et al*., 2024). The presence of body dysmorphic symptoms among dermatology patients also makes these problems more complicated, as high-level European data indicate high levels of body image dissatisfaction among individuals with visible skin conditions (Schut *et al*., 2022).

In psoriasis, rosacea, and hidradenitis suppurativa, the quality of life effect is most pronounced in disabling emotional and social aspects of function. The project carried out by the European Academy of Dermatology and Venereology (EADV) entitled "Burden of Skin Diseases" highlighted that the impairment of quality of life and stigmatization are still prevalent in several conditions and continue to perpetuate the systemic nature of this burden across Europe (Gisondi *et al*., 2023). Together, these results highlight the concept that the burden of chronic skin disease extends far beyond the physical manifestations, and the consequences are experienced within the area of mental health and psychosocial functioning.

This is a more inclusive synthesis than what has been done before. Unlike in the past, when systematic reviews tended to be narrow in their scope, focusing on a single dermatological condition, such as psoriasis or atopic dermatitis, this review has shown that psychological comorbidities and quality of life impairment cross a spectrum of dermatology (Patel *et al*., 2019; Luna *et al*., 2023). It is this integrated approach that is yielding common pathways and disorder-specific unique burdens, and this is helping to understand the role of skin disease in mental health in the world.

The clinical implications of the findings are enormous. It is stated that the recent consensus guidelines are characterized by the necessity to assign importance to the psychological needs of dermatology patients, and the systematic screening of psychiatric comorbidity is a practice standard (Ribera *et al*., 2019). To solve the problem of overlap between dermatology and psychiatric disease, multidisciplinary and integrated models of care have been suggested, combining dermatology, psychiatry, and psychology to offer comprehensive patient care (Patel & Jafferany, 2020). Screening programs have already demonstrated feasibility in identifying patients who would benefit from psychological consultation, strengthening the argument for embedding such practices within dermatology

clinics (Panebianco *et al*., 2018). These clinical models are vital for breaking the cycle between skin disease, psychological comorbidities, and impaired quality of life.

In spite of these advancements, significant areas of research remain to be filled. Most studies in this meta-analysis are based on cross-sectional designs, restricting causal inference. There is an urgent need for longitudinal trials to further clarify the temporal association between dermatological symptoms and mental health outcomes. Interventional studies are limited as well. Although biologic treatments for inflammatory skin disorders have shown improvements in both skin severity and patient-reported outcomes, few trials have focused specifically on mental health as a primary outcome (Luna *et al*., 2023). Likewise, the role of psychotherapies like cognitive-behavioral therapy (CBT) in dermatological populations also needs to be explored in depth. Increasing work in these areas could provide stronger evidence in support of integrated management strategies.

In conclusion, this review corroborates that chronic skin diseases place a significant psychological burden, mediated by biological, psychological, and social mechanisms. Depression, anxiety, suicidality, and diminished quality of life are uniformly present across conditions, compounded by stigma and body image issues. Integrative models of care and regular psychological screening through dermatology are necessary to enhance outcomes. In the future, filling research gaps with longitudinal and interventional studies will be essential to establishing holistic management techniques that cover both skin and mental health.

5. Conclusion

Findings of such comprehensive studies indicate that chronic skin diseases are major and complex contributors to psychological well-being and quality of life, in addition to their physical expression. It is always linked to higher rates of depression, anxiety, suicidal ideation, social impairment, and itching and skin disorders, including psoriasis, atopic dermatitis, acne, vitiligo, hidradenitis suppurativa, and rosacea. In addition, quality of life indices testify that patients tend to complain of poor everyday functioning, low self-esteem, and emotional distress. These findings emphasize the argument that skin diseases are not merely dermatological conditions but rather multifaceted biopsychosocial conditions and ought to be managed using a comprehensive approach to management. The evidence also reveals that stigma and body image issues are very important intermediaries between skin disease and psychological impacts. The negative social interactions among patients are typical and serve to sustain the psychological frailty, and the effects are apparent across all ages, beginning with children and teenagers. These trends demonstrate the need to provide dermatology patients with routine mental health evaluation, stigmatization reduction, and patient-centered counseling. Their results are clinical-oriented in the use of interdisciplinary approaches to care models that integrate dermatologists and psychiatrists, psychologists, and other specialists in health. Psychological assessment may be integrated into the routine practice of dermatology and assist the practitioners to work with the emotional component of skin disease, enhance patient satisfaction, and ultimately elevate treatment outcomes. Additional research is required to clarify these results in longitudinal and multi-centered research that can be implemented to determine causal relationships and the extent to which interventions impact dermatologic and psychological outcomes. Randomized controlled trials of psychotherapeutic interventions, biologic medications, and quality of life indicators are especially needed in evidence-based practice. The effects of chronic skin diseases on mental illness and the quality of life are substantial, and the problems must be addressed in the context of an integrated and interdisciplinary approach. Integration of care and good research will be significant to make the lives of people with chronic disorders better.

References:

1. Bibeau, K., Ezzedine, K., Harris, J.E., van Geel, N., Grimes, P., Parsad, D., Tulpule, M., Gardner, J., Valle, Y., Matewa, G.T. and LaFiura, C., 2023. Mental health and psychosocial quality-of-life burden among patients with vitiligo: findings from the global VALIANT study. *JAMA dermatology*, *159*(10), pp.1124-1128.
2. Chang, H.C., Huang, Y.C., Lien, Y.J. and Chang, Y.S., 2022. Association of rosacea with depression and anxiety: a systematic review and meta-analysis. *Journal of affective disorders*, *299*, pp.239-245.
3. Chen, M., Deng, Z., Huang, Y. and Li, J., 2021. Prevalence and risk factors of anxiety and depression in rosacea patients: a cross-sectional study in China. *Frontiers in psychiatry*, *12*, p.659171.
4. Cohen, B.E., Martires, K.J. and Ho, R.S., 2016. Psoriasis and the risk of depression in the US population: National Health and Nutrition Examination Survey 2009-2012. *JAMA dermatology*, *152*(1), pp.73-79.
5. Dalgard, F.J., Gieler, U., Tomas-Aragones, L., Lien, L., Poot, F., Jemec, G.B., Misery, L., Szabo, C., Linder, D., Sampogna, F. and Evers, A.W., 2015. The psychological burden of skin diseases: a cross-sectional multicenter study among dermatological out-patients in 13 European countries. *Journal of Investigative Dermatology*, *135*(4), pp.984-991.
6. Dowlatshahi, E.A., Wakkee, M., Arends, L.R. and Nijsten, T., 2014. The prevalence and odds of

depressive symptoms and clinical depression in psoriasis patients: a systematic review and meta-analysis. *Journal of Investigative Dermatology*, *134*(6), pp.1542-1551.
7. Elbuluk, N. and Ezzedine, K., 2017. Quality of life, burden of disease, co-morbidities, and systemic effects in vitiligo patients. *Dermatologic clinics*, *35*(2), pp.117-128.
8. Ghajarzadeh, M., Ghiasi, M. and Kheirkhah, S., 2012. Associations between skin diseases and quality of life: a comparison of psoriasis, vitiligo, and alopecia areata. *Acta Medica Iranica*, pp.511-515.
9. Gisondi, P., Puig, L., Richard, M.A., Paul, C., Nijsten, T., Taieb, C., Stratigos, A., Trakatelli, M., Salavastru, C. and EADV Burden of Skin Diseases Project Team, 2023. Quality of life and stigmatization in people with skin diseases in Europe: a large survey from the 'burden of skin diseases' EADV project. *Journal of the European Academy of Dermatology and Venereology*, *37*, pp.6-14.
10. Halvorsen, J.A., Stern, R.S., Dalgard, F., Thoresen, M., Bjertness, E. and Lien, L., 2011. Suicidal ideation, mental health problems, and social impairment are increased in adolescents with acne: a population-based study. *Journal of Investigative Dermatology*, *131*(2), pp.363-370.
11. Hay, R.J., Johns, N.E., Williams, H.C., Bolliger, I.W., Dellavalle, R.P., Margolis, D.J., Marks, R., Naldi, L., Weinstock, M.A., Wulf, S.K. and Michaud, C., 2014. The global burden of skin disease in 2010: an analysis of the prevalence and impact of skin conditions. *Journal of investigative dermatology*, *134*(6), pp.1527-1534.
12. Henderson, A.D., Adesanya, E., Mulick, A., Matthewman, J., Vu, N., Davies, F., Smith, C.H., Hayes, J., Mansfield, K.E. and Langan, S.M., 2023. Common mental health disorders in adults with inflammatory skin conditions: nationwide population-based matched cohort studies in the UK. *BMC medicine*, *21*(1), p.285.
13. Luna, P.C., Chu, C.Y., Fatani, M., Borlenghi, C., Adora, A., Llamado, L.Q. and Wee, J., 2023. Psychosocial burden of psoriasis: a systematic literature review of depression among patients with psoriasis. *Dermatology and therapy*, *13*(12), pp.3043-3055.
14. Machado, M.O., Stergiopoulos, V., Maes, M., Kurdyak, P.A., Lin, P.Y., Wang, L.J., Shyu, Y.C., Firth, J., Koyanagi, A., Solmi, M. and Alavi, A., 2019. Depression and anxiety in adults with hidradenitis suppurativa: a systematic review and meta-analysis. *JAMA dermatology*, *155*(8), pp.939-945.
15. Olivier, C., ROBERT, P.D., Daihung, D.O., URBÀ, G., CATALIN, M.P., HYWEL, W., Kurd, S.K., Troxel, A.B., Crits-Christoph, P. and Gelfand, J.M., 2010. The risk of depression, anxiety, and suicidality in patients with psoriasis: a population-based cohort study. *Archives of dermatology*, *146*(8), pp.891-895.
16. Onderdijk, A.J., Van der Zee, H.H., Esmann, S., Lophaven, S., Dufour, D.N., Jemec, G.B.E. and Boer, J., 2013. Depression in patients with hidradenitis suppurativa. *Journal of the European Academy of Dermatology and Venereology*, *27*(4), pp.473-478.
17. Paller, A.S., Rangel, S.M., Chamlin, S.L., Hajek, A., Phan, S., Hogeling, M., Castelo-Soccio, L., Lara-Corrales, I., Arkin, L., Lawley, L.P. and Funk, T., 2024. Stigmatization and mental health impact of chronic pediatric skin disorders. *JAMA dermatology*, *160*(6), pp.621-630.
18. Panebianco, A., Sampogna, F., Iemboli, M.L., Sobrino, L., Andreoli, E., Antinone, V., Mazzanti, C. and Abeni, D., 2018. A screening programme for dermatologists as a guide to request psychological consultation in routine clinical practice. *European Journal of Dermatology*, *28*(3), pp.326-331.
19. Pärna, E., Aluoja, A. and Kingo, K., 2015. Quality of life and emotional state in chronic skin disease. *Acta dermato-venereologica*, *95*(3), pp.312-316.
20. Patel, A. and Jafferany, M., 2020. Multidisciplinary and holistic models of care for patients with dermatologic disease and psychosocial comorbidity: a systematic review. *JAMA dermatology*, *156*(6), pp.686-694.
21. Patel, K.R., Immaneni, S., Singam, V., Rastogi, S. and Silverberg, J.I., 2019. Association between atopic dermatitis, depression, and suicidal ideation: a systematic review and meta-analysis. *Journal of the American Academy of Dermatology*, *80*(2), pp.402-410.
22. Ribera, M., Ros, S., Madrid, B., Ruiz-Villaverde, R., Rebollo, F., Gómez, S., Loza, E. and Carretero, G., 2019. Consensus statement on the psychological needs of patients with chronic inflammatory skin diseases. *Actas Dermo-Sifiliográficas (English Edition)*, *110*(2), pp.102-114.
23. Rønnstad, A.T.M., Halling-Overgaard, A.S., Hamann, C.R., Skov, L., Egeberg, A. and Thyssen, J.P., 2018. Association of atopic dermatitis with depression, anxiety, and suicidal ideation in children and adults: a systematic review and meta-analysis. *Journal of the American Academy of Dermatology*, *79*(3), pp.448-456.
24. Salari, N., Heidarian, P., Hosseinian-Far, A., Babajani, F. and Mohammadi, M., 2024. Global prevalence of anxiety, depression, and stress among patients with skin diseases: A systematic review and Meta-analysis. *Journal of Prevention*, *45*(4), pp.611-649.
25. Samuels, D.V., Rosenthal, R., Lin, R., Chaudhari, S. and Natsuaki, M.N., 2020. Acne vulgaris and risk of depression and anxiety: a meta-analytic review. *Journal of the American Academy of Dermatology*, *83*(2), pp.532-541.
26. Sandhu, J.K., Wu, K.K., Bui, T.L. and Armstrong,

A.W., 2019. Association between atopic dermatitis and suicidality: a systematic review and meta-analysis. *JAMA dermatology*, *155*(2), pp.178-187.

27. Schut, C., Dalgard, F.J., Bewley, A., Evers, A.W., Gieler, U., Lien, L., Sampogna, F., Ständer, S., Tomás-Aragonés, L., Vulink, N. and Finlay, A.Y., 2022. Body dysmorphia in common skin diseases: results of an observational, cross-sectional multicentre study among dermatological outpatients in 17 European countries. *British Journal of Dermatology*, *187*(1), pp.115-125.
28. Sood, S., Jafferany, M. and Vinaya Kumar, S., 2020. Depression, psychiatric comorbidities, and psychosocial implications associated with acne vulgaris. *Journal of Cosmetic Dermatology*, *19*(12), pp.3177-3182.
29. Sun, C., Ren, Y. and Zhang, W., 2023. Association between skin disease and anxiety: a logistic analysis and prediction. *Annals of translational medicine*, *11*(2), p.115.
30. Van Beugen, S., Schut, C., Kupfer, J., Bewley, A.P., Finlay, A.Y., Gieler, U., Thompson, A.R., Gracia-Cazana, T., Balieva, F., Ferreira, B.R. and Jemec, G.B., 2023. Perceived stigmatization among dermatological outpatients compared with controls: an observational multicentre study in 17 European countries. *Acta dermato-venereologica*, *103*, p.6485.