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UNCOVERING DERMATILLOMANIA: A REVIEW OF SKIN PICKING DISORDER

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ABSTRACT

Background: Excoriation disorder (dermatillomania) is a body-focused repetitive behavior characterized by recurrent skin picking that leads to tissue injury, emotional distress, and impaired functioning. Although formally classified in ICD-11 and DSM-5, the disorder remains underrecognized in clinical settings and often co-occurs with other psychiatric conditions. This review summarizes current evidence on the epidemiology, clinical profile, comorbidity patterns, and available treatment strategies, underscoring its clinical burden and therapeutic relevance.

Methods: A narrative review of peer-reviewed clinical studies, epidemiological analyses, neurobiological investigations, and treatment trials was conducted, focusing on prevalence, risk factors, clinical outcomes, and therapeutic interventions for excoriation disorder.

Results: The disorder affects approximately 3–4% of the population, predominantly females, with onset most often during adolescence and a chronic, relapsing course. Commonly affected areas include the face, arms, and hands, with episodes frequently preceded by anxiety or tension and followed by temporary relief. High rates of comorbidity, particularly with depression, anxiety, OCD, and body dysmorphic disorder, contribute to psychosocial disability, reduced quality of life, and an elevated risk of suicidal ideation. Clinical studies support behavioral therapies, especially cognitive-behavioral approaches such as habit reversal training, as first-line treatment. Pharmacological options, including serotonergic, opioid, or glutamatergic agents, as well as lamotrigine, show benefit in selected cases, although response rates remain variable.

Conclusions: Excoriation disorder is a prevalent and burdensome condition with substantial psychiatric overlap and functional consequences. Early detection and integrated treatment combining behavioral interventions with targeted pharmacotherapy when appropriate are essential to improving outcomes and reducing long-term morbidity.

KEYWORDS

Dermatillomania, Excoriation Disorder, Skin Picking Disorder, Compulsive Skin Picking, Pathologic Skin Picking, Neurotic Excoriation, Psychogenic Excoriation

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Introduction

Excoriation disorder, also referred to as skin-picking disorder or dermatillomania, is a psychiatric condition defined by recurrent and often irresistible urges to pick, scratch, squeeze, or otherwise manipulate areas of healthy or mildly irregular skin, ultimately resulting in noticeable tissue damage and significant psychological distress [27, 20, 8]. The disorder has been formally codified as “excoriation (skin-picking) disorder” in both the eleventh revision of the International Classification of Diseases (ICD-11; 6B25.1) and the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5; 698.4); within these taxonomies, it is categorized among the Obsessive–Compulsive and Related Disorders, alongside other body-focused repetitive behaviors such as trichotillomania, reflecting growing recognition of its shared phenomenological and neurobiological features with this diagnostic cluster [59, 28]. The rationale for its distinction as a separate clinical entity rests on its characteristic symptom profile, relative independence from other dermatological or psychiatric conditions, and its frequent presentation as a primary disorder rather than a secondary manifestation of broader psychopathology [21]. Collectively, these developments have solidified dermatillomania as a clinically meaningful diagnosis, underscoring its importance as a mental health condition that warrants dedicated research, early clinical detection, and specialized therapeutic intervention.

The earliest terminology related to the condition traces back to 1875, when the English dermatologist Erasmus Wilson introduced the term “neurotic excoriation” to characterize compulsive and self-injurious skin-picking behaviors; a more detailed clinical description followed at the end of the nineteenth century, when the French dermatologist Louis-Anne-Jean Brocq published what is considered the first comprehensive case report in 1898, documenting an adolescent girl who persistently manipulated acne lesions to the point of significant

dermatological harm [7, 36]. This early historical trajectory demonstrates that the phenomenon now known as excoriation disorder has been recognized in clinical practice for well over a century, underscoring its enduring visibility as a distinct and observable behavioral pathology rather than a modern diagnostic invention.

Methodology

This narrative review synthesizes current evidence on excoriation (skin-picking) disorder, integrating clinical, epidemiological, neurobiological, and therapeutic perspectives. A comprehensive literature search was conducted across PubMed, Scopus, and Google Scholar, encompassing publications from the inception of the database through 2025. The search strategy combined the aforementioned key terms: “dermatillomania”, “excoriation disorder”, “skin picking disorder”, “compulsive skin picking”, “pathologic skin picking”, “neurotic excoriation”, “psychogenic excoriation”. Reference lists of key review articles were manually screened to identify additional relevant studies.

Eligible publications included peer-reviewed articles in English, encompassing randomized controlled trials, cohort and cross-sectional studies, case reports, neuroimaging research, genetic studies, and systematic reviews or meta-analyses. Animal studies and preclinical models were included only when they contributed mechanistic insight into pathophysiology or treatment development (e.g., SAPAP3-related phenotypes and glutamatergic modulation). Studies were selected based on methodological quality, clinical relevance, and alignment with the review aims. Reports focusing solely on unrelated dermatologic or psychiatric conditions were excluded.

Data extraction emphasized prevalence, comorbidity patterns, clinical characteristics, neurobiological mechanisms, and therapeutic outcomes across behavioral, pharmacological, and emerging treatment modalities. The narrative synthesis approach enabled the integration of heterogeneous findings, highlighting converging evidence across clinical and translational research domains and clarifying the multidimensional nature of excoriation disorder.

This methodology has several inherent limitations. As a narrative review, the synthesis is qualitative rather than quantitative, introducing a degree of interpretive bias and limiting the ability to compare effect sizes across studies. Restricting inclusion to English-language, peer-reviewed literature may have led to language and publication bias, potentially overlooking relevant findings from non-indexed or non-English sources. In addition, the heterogeneity of study designs ranging from case reports to clinical trials reduces methodological uniformity and complicates direct comparison of outcomes. Finally, while preclinical studies were included for mechanistic context, their translational relevance to human pathology remains variable, which may limit the generalizability of certain biological inferences.

Epidemiology and risk factors

Despite its relatively high occurrence in the general population, excoriation disorder remains markedly underrecognized, both clinically and in public health discourse. Recent meta-analytic findings estimate its global prevalence at approximately 3.45%, underscoring the fact that this condition affects a substantial proportion of individuals worldwide and is far from a rare psychiatric phenomenon [11]. Epidemiological data further indicate a notable sex-related disparity, with women exhibiting a disproportionately higher risk; a reported female-to-male odds ratio of 1.45 suggests a heightened vulnerability among females and points to the possibility of sex-linked biological, psychological, or sociocultural contributory factors [11].

Excoriation disorder most frequently emerges during adolescence, a developmental period marked by heightened emotional reactivity and increased susceptibility to body-focused maladaptive coping behaviors. A large-scale latent profile analysis identified two predominant onset trajectories: a major subgroup comprising 92.9% of cases, with a mean age of onset at 13.6 years, and a smaller subgroup accounting for 7.1%, characterized by onset in middle adulthood at an average age of 42.8 years [40]. At the time of diagnosis, the mean duration of symptoms was reported to be 2.9 ± 0.4 years, indicating a considerable delay between illness onset and clinical intervention [25]. Collectively, these findings highlight that excoriation disorder often begins early in life and tends to follow a chronic course, frequently persisting for years before receiving appropriate clinical attention.

Demographic evidence from a retrospective case-control study further delineates the profile of affected individuals. The majority of patients were identified as Caucasian (82%) or Black (14%) [25]. Socioeconomic indicators revealed substantial functional burden: 48% of individuals were unemployed, and 62% were single, divorced, widowed, or legally separated, suggesting meaningful associations with social isolation, occupational dysfunction, and impaired interpersonal stability [25, 26, 50]. Taken together, these findings

underscore the considerable psychosocial toll of excoriation disorder and highlight the critical need for early detection and targeted intervention strategies aimed at mitigating long-term impairment.

Twin studies have demonstrated markedly higher concordance rates for skin-picking behaviors among monozygotic compared with dizygotic twins, indicating a substantial heritable component. [31]. Current estimates suggest that approximately 40% of the variance in liability to excoriation disorder can be attributed to additive genetic factors, whereas the remaining 60% is accounted for by non-shared environmental influences and measurement variability [31]. These findings align with family studies reporting increased rates of psychiatric disorders among first-degree relatives of affected individuals (Table 1) [13, 35]. Taken together, this body of evidence reinforces the role of genetic vulnerability and suggests that excoriation disorder may arise within broader familial patterns of psychopathology, shaped by the interplay of inherited predispositions and individual-specific environmental stressors.

Table 1. Prevalence of psychiatric conditions among first-degree relatives.

Psychiatric Condition	Percentage
Any psychiatric disorder	43.1% [14]
Trichotillomania	22.1% [14]
Skin Picking Disorder	13% [14]
Major depressive disorder	23.7% [14]
Alcohol use disorder	38% [35]
Drug use disorder	13% [35]
Any anxiety disorder	7.6% [14]
Obsessive-compulsive disorder	3.1% [14]
Attention deficit hyperactivity disorder	0.8% [14]

Elevated rates of excoriation disorder have also been documented among individuals with certain genetic and neurodevelopmental conditions, such as Prader–Willi syndrome, Smith–Magenis syndrome [26], and Tourette syndrome, the latter of which shows DSM–5–level diagnostic prevalence as high as 13% [19]. Beyond these associations, the disorder exhibits extensive overlap with other psychiatric conditions, with an overall comorbidity rate of 52% (excluding trichotillomania), as demonstrated in **Tables 2 and 3**. This finding is consistent with reports identifying an 11.8% prevalence among adolescent psychiatric inpatients, suggesting that excoriation disorder frequently emerges within a broader constellation of psychopathology [36]. Individuals with body-focused repetitive behaviors also appear to be at heightened risk for suicidality, with estimates of 13.3% for lifetime suicide attempts and 40.4% for current suicidal ideation [38]. Moreover, excoriation disorder and trichotillomania frequently coexist and may present secondarily to one another, with reported rates of 16.8% and 26.3%, respectively [18]. Taken together, these findings illustrate a complex clinical landscape characterized by high psychiatric comorbidity, substantial diagnostic overlap with related conditions, and a troubling association with suicidal thoughts and behaviors, underscoring the need for vigilant assessment and comprehensive treatment planning.

Table 2. Prevalence of psychiatric conditions in individuals with excoriation disorder.

Psychiatric Condition	Comorbidity Percentage
DSM-IV Axis-I disorder	56.7% [36]
Major depressive disorder	31.7% - 58.1% [36]
Bipolar II disorder	1.6% [14]
Obsessive-compulsive disorder	16.7% - 68% [36]
Trichotillomania	38.3% [36]
Body dysmorphic disorder	26.8% - 44.9% [36]
Eating disorders	4.6% [14]
Substance abuse/dependence	38% [36]
Attention deficit hyperactivity disorder	8.0% [14]
Post Traumatic Stress Disorder	2.7% [14]

Table 3. Prevalence of anxiety disorders among patients with dermatillomania [3].

Anxiety Disorder	Current prevalence rate	Lifetime prevalence rate
Generalized anxiety disorder	19.2%	22.4%
Social Anxiety	10.6%	11%
Any anxiety disorder	27.5%	39.5%

Ethiopathogenesis

Behavioral models of excoriation disorder are supported by consistent reports of heightened tension, anxiety, or stress immediately preceding skin-picking episodes, followed by marked emotional relief afterward [8]. This temporal pattern suggests that the behavior functions as a maladaptive coping mechanism, triggered by contextual stressors and maintained through automatic negative reinforcement [8]. Neurocognitive findings further indicate impaired motor inhibitory control alongside preserved cognitive flexibility, a profile comparable to that observed in trichotillomania but distinct from the deficits typically associated with obsessive-compulsive disorder [37]. Additionally, the use of stimulant substances such as cocaine and methamphetamine has been linked to *formication*, the sensation of insects crawling on or beneath the skin, which can precipitate and intensify picking behaviors [4]. Collectively, these observations highlight excoriation disorder as the product of a complex interplay between psychological stress, maladaptive reinforcement processes, and neurobiological vulnerabilities that together perpetuate the compulsive picking cycle.

Neuroimaging findings provide further support for a neurobiological basis of excoriation disorder. Structural MRI studies have identified reduced gray matter volume within the insula, particularly in posterior regions, with more pronounced reductions observed in patients who experience skin-picking as predominantly unpleasant rather than pleasant [42]. Conversely, reductions in opercular volume appear greatest among individuals who report the behavior as pleasurable or rewarding [42]. Complementing these structural differences, functional neuroimaging studies have demonstrated heightened activation of the anterior and posterior insula during the processing of specific visual cues associated with skin or tactile stimuli [43, 53]. Taken together, these structural and functional alterations implicate insular-opercular networks in the pathophysiology of excoriation disorder, suggesting that aberrant neural processing of sensory and affective signals contributes to the maladaptive emotional and experiential states that drive skin-picking behavior.

Genetic research has increasingly focused on the **SAPAP3** gene as a potential contributor to the pathophysiology of excoriation disorder. In animal models, deletion of **SAPAP3** produces a striking phenotype

characterized by heightened anxiety and excessive grooming behaviors, culminating in alopecia and skin lesions in mice [56]. Human studies have yielded more mixed results: one investigation identified a nominal association between the **SAPAP3** single-nucleotide polymorphism **rs6662980** and grooming disorders [5], whereas another, despite initially observing a significant association with **rs11583978** after correction for multiple testing, ultimately reported non-significant findings [6]. Although the evidence remains preliminary and somewhat inconsistent, these observations suggest that genetic variation in **SAPAP3** may confer vulnerability to abnormal grooming behaviors, positioning it as a promising, albeit as yet unconfirmed, target for future etiological research in excoriation disorder.

Diagnostic Criteria and Clinical Manifestations

Individuals with excoriation disorder employ a range of methods and tools to manipulate the skin. The majority report picking with their fingers (76.8%) or fingernails (94.6%), while a substantial proportion also make use of instruments such as tweezers (74.7%) [52]. The most frequently reported techniques include squeezing (80.7%), scratching (83.9%), and digging (73.6%) [52]. Although many patients identify a primary target area, most (73.8%) ultimately engage in picking across multiple body sites [14, 36]. The regions most commonly affected are the face (55.1%), followed by the arms (28.3%) and fingers (23.2%), with additional involvement of the scalp, torso, legs, hands, and back also documented [14].

The subjective experience of picking appears heterogeneous: episodes may be perceived as either unpleasant or pleasurable and can be accompanied by relief or satisfaction, suggesting the existence of distinct experiential subtypes of the disorder, as highlighted in neuroimaging research [9, 42]. Nevertheless, these behaviors are most frequently precipitated by escalating anxiety, stress, or tension, and the aftermath is often characterized by feelings of guilt, shame, or depressed mood [27]. Collectively, these patterns underscore the multifaceted nature of excoriation disorder, in which sensory, emotional, and behavioral processes interact to maintain a repetitive and distressing cycle of skin manipulation.

A range of internal and external cues appears to precipitate episodes of pathological skin picking. The most frequently endorsed triggers include tactile irregularities on the skin (66.9%), followed by stress (55.2%) and visually perceived imperfections (43.4%) [14]. Additional contextual factors—such as boredom, intrusive urges to pick, and prolonged sedentary activity were also commonly reported and may serve as permissive conditions for symptom escalation [14]. Overall symptom severity across clinical cohorts is typically in the mild-to-moderate range. This is reflected in a mean Skin Picking Symptom Assessment Scale (SP-SAS) score of 28.6 (SD = 6.4) and a mean Clinical Global Impression–Severity (CGI-Severity) rating of 4.3 (SD = 0.7), accompanied by mild to moderate functional impairment on the Sheehan Disability Scale (SDS), where the mean total score was 10.2 (SD = 6.9) [14]. Comorbid affective symptoms were present but comparatively modest, with mean scores of 4.4 (SD = 3.8) on the Hamilton Anxiety Rating Scale (HAM-A) and 4.5 (SD = 3.8) on the Hamilton Depression Rating Scale (HAM-D), indicating mild levels of anxiety and depressive symptomatology [14].

Dermatillomania shares many clinical features with other body-focused repetitive behaviors (BFRBs), particularly trichotillomania, including high rates of comorbidity, similar age of onset, overlapping triggering factors, and a ritualistic, habit-driven quality that is not preceded by obsession [50]. However, a notable distinction between the two is their gender distribution: while trichotillomania occurs relatively evenly across males and females, dermatillomania disproportionately affects women [50]. Like other BFRBs, episodes of skin picking may be accompanied by a range of emotional and reward-based sensations, often emerging in response to negative affect or, alternatively, presenting as automatic picking, a subtype that demonstrates a stronger association with ADHD compared to focused picking [17].

Although excoriation disorder and OCD both involve repetitive behaviors performed with diminished control and may temporarily reduce anxiety, their underlying motivational profiles differ substantially. A considerable subset of patients with dermatillomania report pleasure, gratification, or sensory reward during the act, whereas compulsions in OCD are inherently ego-dystonic and unpleasurable. Correspondingly, standard OCD treatments such as SSRIs and exposure-based therapies tend to be less effective for dermatillomania, and the behavior is only rarely driven by intrusive obsessive thoughts. This distinction is further reflected in personality correlations: while negative emotionality shows strong associations with OCD, BDD, and HD, the correlations are noticeably weaker for dermatillomania and trichotillomania [49].

Given its characteristic strong urges, diminished control, reinforcement through relief or gratification, and continuation despite harm, some have argued that dermatillomania more closely resembles substance use disorders than classic OCD phenotypes [36]. Overall, these overlaps and divergences highlight

dermatillomania as a distinct clinical entity related to but separable from OCD and other BFRBs driven by unique combinations of urges, reward mechanisms, and gender-specific patterns, underscoring the need for tailored treatment approaches.

Several psychometric instruments have been developed to support both clinical management and research on excoriation disorder. Self-report measures such as the Skin Picking Impact Scale (SPIS) and the Milwaukee Inventory for the Dimensions of Adult Skin Picking (MIDAS) are commonly used to assess symptom severity and psychosocial consequences [23, 54]. In addition, structured diagnostic tools have been created, including the Diagnostic Interview for Skin Picking Problems (DISP), which evaluates four key domains: DSM-5 diagnostic criteria, symptom presentation, phenomenology, and illness course [48]. The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) defines excoriation disorder according to the following criteria [28]:

Table 4. DSM-5 Diagnostic Criteria [53].

A. Recurrent skin picking resulting in skin lesions.
B. Repeated attempts to decrease or stop skin picking.
C. The skin picking causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
D. The skin picking is not attributable to the physiological effects of a substance (e.g., cocaine) or another medical condition (e.g., scabies).
E. The skin picking is not better explained by symptoms of another mental disorder (e.g., delusions or tactile hallucinations in a psychotic disorder, attempts to improve a perceived defect or flaw in appearance in body dysmorphic disorder, stereotypies in stereotypic movement disorder, or intention to harm oneself in nonsuicidal self-injury).

The majority of individuals engage in skin picking with their fingers and fingernails, although some also report the use of instruments such as tweezers or needles [50]. These episodes are frequently precipitated by identifiable triggers [27] and are often followed by intense feelings of guilt, shame, or embarrassment. Notably, up to 15% of affected individuals report a history of psychiatric hospitalization [2, 35]. Motivational patterns vary across patients: those with comorbid body dysmorphic disorder tend to pick in an effort to remove or “correct” perceived imperfections such as pimples, bumps, or scars whereas individuals with co-occurring OCD may be driven by contamination-related concerns [36]. The wide variability in methods, triggers, and underlying motivations illustrates that dermatillomania is not a uniform behavior, but rather a multifaceted condition shaped by diverse psychological influences and comorbidities, reinforcing the need for individualized therapeutic strategies.

Any diagnostic evaluation must carefully exclude other conditions associated with pruritus, including dermatologic disorders (such as dandruff, urticaria, eczema, and psoriasis) as well as systemic diseases such as diabetes mellitus, hepatic dysfunction, systemic lupus erythematosus, and polycythemia vera [35]. Although excoriation disorder may initially be triggered by a primary dermatologic condition such as acne, eczema, keratosis pilaris, or psoriasis its clinical severity is typically disproportionate to the underlying pathology, and skin-picking behaviors often persist even after the precipitating condition has resolved, sometimes further aggravating the original dermatological findings [58, 60, 13]. Beyond somatic contributors, acute psychosocial stressors, including unwanted pregnancies, marital conflict, and bereavement, have also been identified as precipitating events [24].

In terms of symptom expression, patients may engage in both focused picking performed consciously in response to perceived imperfections or emotional distress and automatic picking, which occurs outside of conscious awareness and is often only recognized after tissue damage has occurred. These two modes frequently coexist within the same individual, fluctuating in prominence over time. Taken together, the multifactorial triggers and variable levels of awareness that characterize excoriation disorder highlight its clinical complexity. Effective assessment and management therefore, require attention to both medical comorbidities and psychological determinants, emphasizing the need for an integrated biopsychosocial approach.

Complications resulting from repetitive skin-picking behaviors can be severe and wide-ranging. Common medical consequences include tissue damage, secondary bacterial infections, sepsis, scarring, and permanent disfigurement, in some cases necessitating hospitalization, surgical debridement, or even skin grafting. In rare but grave instances, complications such as epidural abscesses and paralysis have been reported [2, 35, 32, 55, 29, 36, 33]. The temporal pattern of symptoms varies considerably among patients, ranging from numerous brief episodes throughout the day to infrequent but prolonged episodes lasting several hours. However, most individuals spend three hours or less per day engaged in skin-picking behaviors [1]. The potentially life-threatening medical sequelae, coupled with the broad variability in symptom patterns, underscore that excoriation disorder is not merely a behavioral or psychological condition. Rather, it is a multifaceted illness with serious somatic risks, highlighting the importance of prompt diagnosis, early intervention, and coordinated multidisciplinary care.

Greater psychosocial dysfunction has been associated with increased disease severity, whereas cognitive performance appears to remain largely unaffected; Notably, more than half of individuals (56%) report moderate to severe functional impairment related to their symptoms [18]. Meta-analytic data indicate a low-to-moderate pooled correlation between symptom severity and anxiety ($r = 0.34$), with a stronger association observed in focused picking ($r = 0.42$) compared to automatic picking ($r = 0.15$). [3]. The relationship among symptom severity, psychosocial impairment, and anxiety particularly in individuals who engage predominantly in focused picking demonstrates that dermatillomania can exert a profound impact on daily functioning despite the absence of measurable cognitive deficits. This finding underscores the disorder's disabling potential and highlights the importance of a comprehensive assessment that goes beyond cognitive functioning alone.

Treatment Approaches and Prognosis

The disorder often follows a chronic and enduring course, with reported durations ranging from 5 to 21 years. Social dysfunction is frequently observed, particularly as individuals attempt to conceal skin damage by using clothing, cosmetics, or bandages, or by avoiding social situations and, in some cases, refraining from leaving their homes altogether [22]. Despite this considerable burden, treatment-seeking remains strikingly low. Two studies reported that only 30%–45% of affected individuals actively sought professional help [58, 32]. Among those surveyed, merely 22.0% had received any prior treatment, 14.5% pharmacological and 19.1 % psychotherapeutic interventions [14]. Nonetheless, those who did receive treatment reported high perceived benefit, with 77.6% and 87.2% finding pharmacotherapy and psychotherapy, respectively, to be helpful [13].

A review of alternative treatment pathways further revealed that fewer than half of patients attended follow-up psychiatric appointments and fewer than 25% achieved sustained, long-term improvement [51]. Collectively, these findings illustrate a striking disconnect: although most treated patients experience meaningful benefit, relatively few ever seek or remain engaged in care. This gap, set against the disorder's chronic nature and profound psychosocial impact, emphasizes the urgent need for improved screening, patient education, and accessible long-term management strategies.

In terms of pharmacotherapy, the most extensively studied agents include selective serotonin reuptake inhibitors (SSRIs) such as fluoxetine, citalopram, escitalopram, fluvoxamine, and sertraline, as well as antiepileptic medications (e.g., lamotrigine), glutamatergic agents such as N-acetylcysteine (NAC), opioid antagonists (naltrexone), and inositol [27, 46]. Among nonpharmacological treatments, the leading evidence-based approaches comprise cognitive-behavioral therapy (CBT), habit reversal training (HRT), acceptance-enhanced behavior therapy, and acceptance and commitment therapy (ACT), which incorporate strategies such as awareness training and competing response techniques [26, 36, 9, 8, 26]. Complementary interventions have also been explored, including Obsessive Skin Pickers Anonymous (OSPA), a 12-step program modeled after addiction-focused support groups. Across studies, treatment outcomes have generally been favorable [46]; notably, even inactive comparison conditions, including placebo and waitlist controls, have demonstrated statistically significant improvement over time [44], suggesting that nonspecific therapeutic effects, expectancy, or natural symptom fluctuation may play a meaningful role.. The wide spectrum of pharmacological, behavioral, and adjunctive interventions highlights the multifaceted nature of dermatillomania treatment and reinforces the importance of individualized, patient-centered therapeutic planning.

A wide range of treatment strategies has been proposed for individuals with developmental disabilities who engage in skin-picking behaviors. These approaches include the use of protective clothing, such as gloves or face masks, as well as behavioral interventions like Differential Reinforcement of Other Behavior (DRO),

which promotes alternative behaviors, and Differential Reinforcement of Incompatible Behavior (DRI), which rewards actions that cannot be performed simultaneously with skin picking. Although these methods show therapeutic promise, evidence for their effectiveness is limited to small-scale studies [26]. Moreover, implementation can be particularly challenging in this population due to cognitive, behavioral, and communication impairments, which may hinder engagement, comprehension, and consistency in treatment.

Although one meta-analysis initially reported large treatment effects for behavioral interventions, lamotrigine, and SSRIs [46], subsequent research has revealed a far more complex efficacy pattern. A meta-analysis of both randomized controlled and uncontrolled trials found that behavioral treatments, particularly cognitive-behavioral therapy (CBT) and habit reversal training (HRT), produced significant symptom reduction compared with inactive controls, alongside a progressive decrease in skin-picking severity over time [44]. Additional analyses suggest that neurofeedback may also confer clinical benefit when compared to other therapeutic strategies [12].

By contrast, findings regarding pharmacotherapy have been markedly less consistent. While SSRI treatment was associated with gradual improvement, randomized comparisons demonstrated no significant advantage over placebo [44]. A similar pattern was observed with lamotrigine: although initial symptom reduction was noted, the effect disappeared when a placebo comparison was applied [44]. Taken together, current evidence indicates that behavioral therapies remain the most robust and reliable treatment option, whereas pharmacological strategies such as SSRIs and lamotrigine yield mixed or placebo-comparable outcomes. These results underscore the central role of behavioral intervention in dermatillomania management and highlight the need for further research into more effective pharmacological approaches.

Some studies have suggested that doxepin, clomipramine, naltrexone, pimozide, and olanzapine may be effective; however, these findings come from methodologically limited research, preventing any firm conclusions from being drawn [1]. Opioid antagonists have been postulated to reduce the rewarding aspects of skin picking by modulating the dopaminergic system. In this context, naltrexone has been explored as a treatment for a proposed animal analogue of dermatillomania acral lick dermatitis in dogs [10, 57]. Although human data are lacking, several case reports offer preliminary support for its potential efficacy [39].

N-acetylcysteine (NAC), a glutamatergic agent used in the treatment of cocaine addiction and trichotillomania [30, 16] has also emerged as a promising candidate based on case reports [34]. In a randomized, double-blind, placebo-controlled trial, NAC demonstrated a substantial reduction in symptoms (47%) compared to placebo (19%), though without measurable differences in psychosocial functioning between groups [15]. Another glutamatergic medication, riluzole, has shown anecdotal benefit as well [41]. Evidence for inositol remains limited, supported only by a single small uncontrolled study [45]. Similarly, a preliminary research of the antiepileptic agent topiramate in individuals with Prader–Willi syndrome reported a reduction in skin-picking behavior [47]. Taken together, current pharmacological findings present a complex and inconclusive picture. While several agents show preliminary promise, the literature is dominated by small samples, uncontrolled designs, and anecdotal reports. Robust, adequately powered clinical trials are urgently needed to identify effective and reliable pharmacotherapies for dermatillomania.

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