ReGeo ISSN: 2177-3246

TRICHOTILLOMANIA AND EXCORIATION DISORDER: COMPARATIVE EFFICACY OF HABIT REVERSAL TRAINING

TRICOTILOMANIA E TRANSTORNO DE ESCORIAÇÃO: EFICÁCIA COMPARATIVA DO TREINAMENTO DE REVERSÃO DE HÁBITO

TRICOTILOMANÍA Y TRASTORNO DE EXCORIACIÓN: EFICACIA COMPARATIVA DEL ENTRENAMIENTO DE INVERSIÓN DE HÁBITO

https://doi.org/10.56238/revgeov17n10-036

Data de submissão: 08/09/2026 **Data de publicação:** 08/10/2026

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ABSTRACT

Trichotillomania and excoriation disorder are body-focused repetitive behavior disorders characterized by recurrent hair pulling or skin picking, unsuccessful efforts to reduce the behavior, and clinically significant distress or impairment. Habit reversal training is the behavioral core of first-line treatment for both disorders. This narrative review compares its rationale, implementation, efficacy, limitations, and place relative to other interventions. Habit reversal training combines awareness training, an incompatible competing response, and social support; stimulus control, functional analysis, emotion-regulation, and acceptance-based methods are frequently added. For trichotillomania, multiple randomized trials and an updated meta-analysis show large symptom reductions with behavioral therapy incorporating habit reversal, including evidence in adults and children. Comprehensive Behavioral treatment and acceptance-enhanced behavior therapy extend the core protocol for sensory, cognitive, affective, motor, and environmental triggers. For excoriation disorder, randomized and controlled studies also support habit-reversal-based cognitive-behavioral treatment, but samples are smaller, protocols are less standardized, and the evidence is more heterogeneous. No valid head-to-head trial establishes that habit reversal is intrinsically more effective in one disorder than the other; the defensible comparative conclusion is that efficacy is supported for both, with greater certainty for trichotillomania. Treatment should be

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individualized according to focused versus automatic behavior, cue patterns, wound or alopecia severity, age, comorbidity, and readiness. Pharmacotherapy may be adjunctive: N-acetylcysteine has positive adult trials in both conditions but a negative pediatric trichotillomania trial, while selective serotonin reuptake inhibitors should primarily target comorbidity rather than be assumed to treat hair pulling. Measurement-based care, relapse planning, dermatologic management, and access to trained therapists remain priorities.

Keywords: Trichotillomania. Excoriation Disorder. Skin-picking Disorder. Habit Reversal Training. Body-focused Repetitive Behaviors. Cognitive-behavioral Therapy.

RESUMO

Tricotilomania e transtorno de escoriação são transtornos de comportamento repetitivo focado no corpo caracterizados por puxar cabelo recorrente ou cutucar pele, esforços mal-sucedidos para reduzir o comportamento e sofrimento clinicamente significativo ou comprometimento. Treinamento de reversão de hábitos é o núcleo comportamental do tratamento de primeira linha para ambos os transtornos. Esta revisão narrativa compara sua fundamentação, implementação, eficácia, limitações e lugar relativo a outras intervenções. O treinamento de reversão de hábitos combina treinamento de consciência, uma resposta concorrente incompatível e suporte social; controle de estímulo, análise funcional, regulação emocional e métodos baseados em aceitação são frequentemente acrescentados. Para tricotilomania, múltiplos ensaios randomizados e uma meta-análise atualizada mostram grandes reduções de sintomas com terapia comportamental incorporando reversão de hábitos, incluindo evidências em adultos e crianças. Tratamento comportamental abrangente e terapia comportamental aprimorada por aceitação estendem o protocolo principal para desencadeadores sensoriais, cognitivos, afetivos, motores e ambientais. Para transtorno de escoriação, estudos randomizados e controlados também apoiam tratamento cognitivo-comportamental baseado em reversão de hábitos, mas as amostras são menores, os protocolos são menos padronizados e a evidência é mais heterogênea. Nenhum ensaio head-to-head válido estabelece que a reversão de hábitos seja intrinsecamente mais eficaz em um transtorno do que no outro; a conclusão comparativa defensável é que a eficácia é apoiada para ambos, com maior certeza para tricotilomania. O tratamento deve ser individualizado de acordo com comportamento focado versus automático, padrões de pistas, severidade de ferida ou alopecia, idade, comorbidade e prontidão. A farmacoterapia pode ser adjunta: N-acetilcisteína tem ensaios positivos em adultos em ambas as condições, mas um ensaio pediátrico negativo de tricotilomania, enquanto inibidores seletivos de recaptação de serotonina devem direcionar principalmente a comorbidade em vez de assumir que tratam o puxar de cabelo. Cuidado baseado em medição, planejamento de recaída, manejo dermatológico e acesso a terapeutas treinados permanecem prioridades.

Palavras-chave: Tricotilomania. Transtorno de Escoriação. Transtorno de Cutucar Pele. Treinamento de Reversão de Hábitos. Comportamentos Repetitivos Focados no Corpo. Terapia Cognitivo-comportamental.

RESUMEN

La tricotilomanía y el trastorno de excoriación son trastornos de comportamiento repetitivo enfocado en el cuerpo caracterizados por arrancarse cabello recurrente o rascarse la piel, esfuerzos infructuosos para reducir el comportamiento y angustia o deterioro clínicamente significativos. El entrenamiento de reversión de hábitos es el núcleo conductual del tratamiento de primera línea para ambos trastornos. Esta revisión narrativa compara su fundamento, implementación, eficacia, limitaciones y lugar en relación con otras

intervenciones. El entrenamiento de reversión de hábitos combina entrenamiento de conciencia, una respuesta competitiva incompatible y apoyo social; el control de estímulos, análisis funcional, regulación emocional y métodos basados en la aceptación se añaden frecuentemente. Para la tricotilomanía, múltiples ensayos aleatorizados y un metaanálisis actualizado muestran reducciones sintomáticas grandes con terapia conductual incorporando reversión de hábitos, incluida evidencia en adultos y niños. El tratamiento conductual integral y la terapia conductual mejorada por aceptación amplían el protocolo principal para factores desencadenantes sensoriales, cognitivos, afectivos, motores y ambientales. Para el trastorno de excoriación, estudios aleatorizados y controlados también respaldan el tratamiento cognitivo-conductual basado en reversión de hábitos, pero las muestras son más pequeñas, los protocolos son menos estandarizados y la evidencia es más heterogénea. Ningún ensayo head-to-head válido establece que la reversión de hábitos sea intrínsecamente más efectiva en un trastorno que en otro; la conclusión comparativa defendible es que la eficacia se respalda para ambos, con mayor certeza para la tricotilomanía. El tratamiento debe individualizarse según comportamiento enfocado versus automático, patrones de pistas, severidad de heridas o alopecia, edad, comorbilidad y disposición. La farmacoterapia puede ser adyuvante: la N-acetilcisteína tiene ensayos positivos en adultos en ambas condiciones pero un ensayo pediátrico negativo de tricotilomanía, mientras que los inhibidores selectivos de la recaptación de serotonina deben dirigirse principalmente a la comorbilidad en lugar de asumir que tratan el arrancamiento de cabello. La atención basada en mediciones, la planificación de recaídas, el manejo dermatológico y el acceso a terapeutas capacitados siguen siendo prioridades.

Palabras clave: Tricotilomanía. Trastorno de Excoriación. Trastorno de Rascarse la Piel. Entrenamiento de Reversión de Hábitos. Comportamientos Repetitivos Enfocados en el Cuerpo. Terapia Cognitivo-conductual.

1 INTRODUCTION

Trichotillomania (TTM; hair-pulling disorder) and excoriation disorder (ED; skin-picking disorder) are classified among obsessive-compulsive and related disorders. TTM requires recurrent pulling that causes hair loss, repeated attempts to decrease or stop, and clinically significant distress or impairment not better explained by another condition. ED is defined analogously by recurrent picking that produces skin lesions. Neither disorder requires a preceding urge, tension, pleasure, or relief, although these experiences are common. Both may be concealed for years because of shame, cosmetic camouflage, and fear that the behavior will be dismissed as voluntary.[1–3]

The disorders belong to the broader group of body-focused repetitive behaviors (BFRBs), which also includes clinically important nail biting, cheek biting, and related grooming behaviors. They share repeated motor patterns, automatic and focused episodes, sensory reinforcement, emotion-regulation functions, and cycles of short-term relief followed by damage and distress. They are nevertheless not interchangeable. Hair pulling targets hairs with particular texture or location and can involve inspection, biting, or ingestion; skin picking may begin with acne, keratosis, scabs, or subtle irregularities and is perpetuated by the creation of new lesions.[2–4]

Habit reversal training (HRT) is the best established behavioral approach. Its essential sequence is to detect the behavior and its earliest cues, perform a physically incompatible response, and enlist supportive reinforcement. Modern protocols add stimulus control, functional analysis, cognitive and acceptance strategies, and relapse prevention. The practical question is whether the same intervention has comparable efficacy across TTM and ED and how differences in evidence should affect treatment planning.

A superficial comparison of response percentages is misleading. TTM has more randomized trials and disorder-specific meta-analysis; ED studies are fewer, often combine HRT with other cognitive-behavioral elements, and use different measures and control conditions. There is no trial that randomizes people with the two disorders to an identical protocol and validly tests a disorder-by-treatment interaction. Comparative efficacy must therefore be framed as the strength and consistency of evidence within each disorder rather than as a direct contest between them.

2 OBJECTIVE

To compare the efficacy and clinical use of HRT in TTM and ED, describe its active components and adaptations, place the evidence in relation to pharmacologic and enhanced behavioral treatments, and propose a practical assessment, delivery, and relapse-prevention framework.

3 METHODS

A structured narrative review was conducted using diagnostic references, randomized and controlled behavioral trials, systematic reviews and meta-analyses, treatment-development studies, and key pharmacotherapy trials available through September 2026. The synthesis prioritized trials in which HRT or a recognizable HRT-based protocol was central. TTM and ED evidence was evaluated separately because outcomes, comparators, sample sizes, and treatment packages differ. Effect sizes are reported only when supported by a formal synthesis, and indirect comparisons are explicitly identified as such.

4 RESULTS AND DISCUSSION

4.1 SHARED MECHANISMS AND CLINICALLY IMPORTANT DIFFERENCES

Both disorders may occur in an automatic mode, with limited awareness during sedentary activity, or a focused mode, in which the person responds to an urge, emotion, thought, or perceived imperfection. Most patients have a mixture. Automatic episodes require environmental cue detection, barriers, and frequent brief practice; focused episodes often require tolerance of urges, emotional regulation, and alternatives to perfectionistic grooming. A diagnostic label alone does not reveal the maintaining mechanism, so functional assessment is part of treatment rather than a preliminary formality.[3–5]

In TTM, cues include coarse or irregular hairs, scalp tingling, visual searching, mirrors, tweezers, reading, screen use, driving, and bedtime. The motor chain may extend from touching and scanning to selecting, pulling, examining, biting, or swallowing. Trichophagia deserves direct questioning because trichobezoar can cause abdominal pain, obstruction, bleeding, pancreatitis, or perforation. Patchy nonscarring alopecia, hairs of different lengths, and broken shafts may be present, but tinea capitis, alopecia areata, traction alopecia, androgenetic alopecia, and other causes of hair loss must be excluded when indicated.[2,4]

In ED, triggers commonly include acne, follicular plugs, keratoses, scabs, dry skin, mirrors, bright lighting, tactile scanning, boredom, anxiety, and attempts to make the skin feel

smooth. A small irregularity can initiate picking, and the resulting crust becomes a new trigger. Assessment should distinguish ED from primary pruritic dermatoses, substance-induced picking, body dysmorphic disorder, nonsuicidal self-injury, delusional infestation, and deliberate manipulation for another purpose. Infection, scarring, dyspigmentation, and delayed wound healing require concurrent dermatologic management.[3],[6]

The functional consequences overlap: concealment, avoidance of intimacy, delayed medical care, reduced concentration, lateness, financial costs, and depression. Comorbidity with anxiety, depressive, obsessive-compulsive, attention-deficit/hyperactivity, tic, and other BFRB symptoms is common. Suicidality is not a defining feature but should be assessed when shame, depression, or severe impairment is present. The behavior's self-damaging result should not automatically be labeled nonsuicidal self-injury; intent and function are different and must be elicited.

Table 1

Comparative clinical features relevant to habit reversal training

Domain	Trichotillomania	Excoriation disorder	Treatment implication
Core behavior	Pulling hair, often after scanning or selecting	Picking, squeezing, scraping, or digging skin	Map the complete motor chain
Common cue	Hair texture, scalp sensation, sedentary activity	Blemish, crust, tactile irregularity, mirror	Target earliest cue, not only completed act
Automatic pattern	Hand-to-hair activity during reading, screens, driving, or bed	Tactile scanning or picking while sedentary	Use awareness prompts, barriers, and competing responses
Focused pattern	Urge, tension, search for a particular hair	Perceived imperfection, itch, anxiety, urge to smooth	Add urge tolerance, cognitive and emotion-regulation work
Medical risk	Alopecia, follicular damage; trichobezoar with trichophagia	Infection, ulceration, scarring, dyspigmentation	Coordinate dermatologic or medical care
Environmental adaptation	Hair access, tweezers, high-risk hand positions	Mirrors, lighting, extraction tools, untreated dermatoses	Individualize stimulus control

Automatic and focused modes frequently coexist; treatment formulation should be based on observed function rather than diagnosis alone.[2–5]
Source: Prepared by the authors.

4.2 WHAT HABIT REVERSAL TRAINING CONTAINS

Awareness training makes the response observable before it becomes inevitable. The patient describes the full motor sequence, practices detecting simulated movements, and records episodes, antecedents, sites, urges, thoughts, emotions, and consequences. The

most useful target is often the earliest detectable precursor—hand moving toward hair, fingertip scanning, entering a high-risk bathroom routine—rather than the completed pull or pick. Self-monitoring should be brief enough to sustain and should measure patterns rather than serve as punishment.[5,7]

Competing-response training introduces a behavior that is physically incompatible with pulling or picking and can be maintained discreetly until the urge falls or the risk period passes. Examples include gently clenching the fists, placing hands flat on the thighs, interlacing fingers, or holding an object with both hands. The response must be safe, available, and linked to the individual cue. Simply substituting another repetitive behavior can move harm elsewhere; the therapist therefore tests whether the response actually blocks access and is socially workable.

Social support involves a chosen person giving agreed, noncritical prompts and reinforcing skill use. It is not surveillance or forced disclosure. In children, caregivers shape the environment, reward practice, and avoid shaming or repeated commands to stop. For adults, a partner or friend can notice high-risk postures or acknowledge success. The patient controls the support plan because coercive monitoring may increase secrecy and emotional triggers.

Stimulus control changes the environment so that the behavior is less likely, less automatic, or interrupted earlier. Examples include covering tweezers, changing mirror distance or lighting, treating acne and xerosis, using finger covers or hydrocolloid dressings for selected sites, keeping both hands engaged during screen use, altering bedtime routines, or placing cue cards in high-risk locations. Barriers are training wheels rather than a complete treatment: if used without awareness and competing responses, behavior may resume as soon as the barrier is removed.

Contemporary HRT-based packages address functions beyond habit strength. The Comprehensive Behavioral model (ComB) selects interventions across sensory, cognitive, affective, motor, and place/environmental domains.[8,9] Acceptance-enhanced behavior therapy teaches willingness to experience urges and emotions without acting on them.[10,11] These additions are conceptually useful when pure response blocking does not address sensory satisfaction, perfectionistic rules, or experiential avoidance. They retain behavioral practice rather than replacing it with insight alone.

4.3 EFFICACY IN TRICHOTILLOMANIA

TTM has the strongest HRT evidence among BFRBs. An updated systematic review and meta-analysis of randomized trials found that behavioral therapy incorporating HRT produced a large reduction in TTM severity relative to control, with a standardized mean difference of approximately −1.22. The authors concluded that BT-HRT had the largest treatment effects and strongest evidence base among evaluated interventions.[12] The estimate is clinically persuasive but should not be read as the effect of a single invariant protocol: trials differed in age, therapist contact, control condition, adjunctive components, and outcome scale.

Adult trials show that HRT-based treatment can outperform waiting list, minimal-attention, supportive, or medication comparison conditions. A controlled trial combining acceptance and commitment therapy with HRT reduced hair-pulling severity and impairment, with gains generally maintained at three months.[10] A later randomized trial of acceptance-enhanced behavior therapy also supported an integrated approach.[11] These designs do not isolate the unique contribution of every component, but they demonstrate that HRT can remain central while treatment expands to urge acceptance and emotional triggers.

Evidence also supports pediatric treatment. In a randomized trial of children and adolescents, an eight-session behavioral protocol produced greater improvement than a minimal-attention control, and acute gains were maintained through a maintenance phase.[13] A separate preliminary randomized trial comparing HRT with treatment as usual in youth also found greater symptom improvement with HRT.[14] Family participation, developmentally appropriate language, concrete rewards, and school-specific planning are important, while responsibility should not be transferred to caregivers in a manner that creates blame.

The ComB randomized clinical trial showed that an individualized functional model was superior to minimal attention at post-treatment, extending conventional HRT by matching strategies to the patient's maintaining domains.[8] Long-term follow-up suggests that some benefit persists, but relapse or residual symptoms remain common.[15] This is consistent with the recurrent nature of TTM: an acute response does not prove permanent elimination of vulnerability. Booster sessions and rapid reactivation of skills should be discussed before treatment ends.

The best evidence therefore supports HRT-based behavior therapy as first-line treatment for TTM. However, response is not universal. Predictors are not sufficiently reliable to deny treatment, and failure should trigger review of awareness, between-session practice,

functional formulation, comorbidity, family accommodation, and whether a therapist delivered active HRT rather than generic supportive counseling.

4.4 EFFICACY IN EXCORIATION DISORDER

The ED literature is smaller but supports the same behavioral core. In a controlled study of adults with chronic skin picking, HRT was superior to a waiting-list condition and improvements were maintained at follow-up.[16] A brief cognitive-behavioral intervention that included HRT principles also reduced picking relative to a waiting-list control.[17] These trials are clinically important because they demonstrate more than within-person improvement, yet small samples and limited follow-up restrict precision and generalizability.

A systematic review and meta-analysis found large pre-to-post improvement across ED treatments but identified behavioral interventions as the category with clearer benefit against inactive control conditions.[18] Reviews consequently recognize HRT and acceptance-enhanced behavioral therapy as established management options.[6,18] The package label matters: studies described as CBT may combine psychoeducation, self-monitoring, stimulus control, cognitive restructuring, relapse prevention, and HRT. The evidence supports a structured behavioral package centered on awareness and response change more strongly than it isolates any one component.

ED adaptation requires attention to real dermatologic triggers. Acne, eczema, folliculitis, keratosis pilaris, wounds, and pruritus should be treated without promising perfectly smooth skin. Wound occlusion may both promote healing and block access, but it should be monitored for maceration, allergy, or ritualized use. Mirror retraining, reduced magnification, timed grooming, appropriate lighting, and rules that separate medically indicated skin care from picking are often more relevant than in TTM.

Digital and remotely delivered behavior therapy may improve access for both disorders, and internet-based acceptance-oriented programs have produced promising reductions.[19] However, adherence, therapist guidance, diagnostic verification, and durability vary. Digital care is best considered a delivery route whose content and support must be specified, not a distinct mechanism that can be assumed equivalent to therapist-delivered HRT.

Table 2

Comparative evidence for habit-reversal-based treatment

Evidence domain	Trichotillomania	Excoriation disorder	Interpretation
Controlled trials	Multiple adult and pediatric trials of HRT-based behavior therapy	Several small trials of HRT or HRT-containing CBT	Controlled efficacy is supported in both
Meta-analytic evidence	Updated RCT meta-analysis reports a large BT-HRT effect	Meta-analysis supports behavioral treatment, with fewer heterogeneous studies	Certainty is greater for TTM
Enhanced protocols	ACT/HRT, acceptance-enhanced behavior therapy, and ComB tested	Acceptance-enhanced and broader CBT packages are promising	Added components should match function
Durability	Maintenance demonstrated in some trials; adult relapse remains common	Limited follow-up; relapse and residual picking occur	Plan boosters and rapid response to lapses
Direct TTM-versus-ED comparison	No valid head-to-head disorder comparison	No valid head-to-head disorder comparison	Do not infer superiority from separate effect sizes

HRT, habit reversal training; BT, behavior therapy; CBT, cognitive-behavioral therapy; ACT, acceptance and commitment therapy; ComB, Comprehensive Behavioral treatment.[8,10,12,13,16–18]
Source: Prepared by the authors.

4.5 COMPARATIVE INTERPRETATION

The most defensible comparison has three levels. First, HRT-based treatment is efficacious for both TTM and ED compared with inactive or low-intensity controls. Second, confidence is higher for TTM because it has more disorder-specific randomized trials, pediatric data, enhanced-protocol trials, and a meta-analysis showing a large controlled effect. Third, the apparent numerical effects across separate reviews cannot establish that TTM responds better than ED because samples, measures, control groups, duration, and publication processes differ.[12,18]

The disorders may also generate different obstacles without implying different responsiveness. A discrete hair-pulling action can sometimes be interrupted by a competing response, whereas skin picking may be prolonged, visually guided, and triggered by genuine lesions. Conversely, hair pulling may occur almost continuously and automatically, involve multiple sites, or include trichophagia. Treatment intensity should follow functional complexity and risk, not the diagnostic category alone.

Claims that HRT is 'equally effective' are therefore stronger than the data permit, just as claims that it works only for TTM are incorrect. The appropriate evidence statement is that HRT is first-line in both disorders, with a more mature efficacy literature in TTM and a

promising but smaller and more heterogeneous controlled literature in ED. A direct comparative trial would need the same eligibility framework, protocol, therapist training, treatment dose, common outcomes, and a prespecified interaction analysis.

4.6 HRT RELATIVE TO MEDICATION AND COMBINED TREATMENT

Behavior therapy has a stronger and more reproducible evidence base for TTM than any medication. In the updated meta-analysis, clomipramine, N-acetylcysteine (NAC), and olanzapine each showed benefit in individual trials, but none had the breadth of replicated evidence available for BT-HRT.[12,24,25] Selective serotonin reuptake inhibitors have not shown consistent benefit for hair pulling itself and should be used principally for a co-occurring depressive, anxiety, or obsessive-compulsive disorder when indicated. Adverse effects and patient preference matter because TTM commonly requires long-term management.

Adult NAC trials are relevant to both disorders. A randomized trial in adults with TTM found greater improvement with NAC than placebo, while a pediatric TTM trial did not demonstrate benefit.[20,21] In adults with ED, a randomized clinical trial found that NAC reduced skin-picking symptoms and was generally well tolerated.[22] These findings make NAC a possible adjunct in selected adults, not a replacement for HRT or a universal recommendation. Product quality, gastrointestinal adverse effects, asthma history, interactions, pregnancy, and the limitations of long-term evidence should be discussed.

Medication evidence in ED includes trials of glutamatergic agents and antidepressants, but placebo-controlled results are mixed and the meta-analytic signal is less consistent than for behavioral treatment.[6,18,23] Medication may be reasonable when HRT is unavailable, declined, insufficient, or when a comorbid condition requires treatment. The optimal sequence or additive benefit of combined medication and HRT has not been established by large factorial trials. A practical strategy is to preserve HRT as the core and add medication for a clearly defined target, then measure both target and adverse effects.

Table 3

Practical staged treatment plan for trichotillomania and excoriation disorder

Stage	Core action	Examples of measurable outcomes
Assessment	Confirm diagnosis; map sites, modes, cues, consequences, comorbidity, and medical risk	Baseline severity score, episode duration, lesion or alopecia documentation, functional goal
Awareness	Self-monitor early motor and contextual cues; practice detection	Proportion of episodes noticed before pulling or picking
Competing response	Select, rehearse, and deploy an incompatible response	Use after cue; urge trajectory; prevented episodes
Stimulus control	Modify tools, mirrors, lighting, hand position, skin or hair access, and high-risk routines	Reduced automatic episodes in named contexts
Functional enhancement	Add ComB, acceptance, cognitive, emotion-regulation, family, or dermatologic strategies	Improvement in the maintaining domain and daily function
Maintenance	Generalize skills, taper visits, plan lapses and boosters	Sustained symptom reduction, healing or regrowth, rapid recovery from lapse

Treatment is iterative: new monitoring data may return the clinician to functional assessment rather than simply adding intensity.
Source: Prepared by the authors.

4.7 CLINICAL ASSESSMENT AND TREATMENT DELIVERY

Assessment should establish diagnosis, onset, sites, frequency, duration, focused and automatic features, antecedents, rituals, attempts to stop, impairment, and treatment history. Dermatologic examination documents alopecia or lesions and identifies infection, scarring, and primary skin disease. Clinicians should ask directly about trichophagia, use of tools, ingestion of skin or scabs, bleeding, abscess, and self-treatment. Abdominal symptoms with trichophagia require medical evaluation for trichobezoar; spreading erythema, fever, severe pain, or deep injury requires prompt wound care.

Baseline severity should be measured with a validated instrument and a patient-defined functional outcome. Common TTM measures include the Massachusetts General Hospital Hairpulling Scale, National Institute of Mental Health Trichotillomania Severity Scale, and age-appropriate Trichotillomania Scale for Children. The Skin Picking Scale–Revised is useful for ED. Standardized photographs with consent can document hair growth or lesion healing, but appearance alone may lag behind behavioral change and can be affected by concealment or dermatologic treatment.

An initial course often involves weekly sessions with daily brief practice and self-monitoring. The therapist should observe a competing response, rehearse it across high-risk

contexts, and review homework behaviorally rather than accepting verbal understanding as skill acquisition. For automatic behavior, reminders and barriers may be frequent; for focused behavior, urge surfing, emotion labeling, cognitive flexibility, and alternative soothing activities may be needed. The plan should be simplified when perfectionistic logging or too many tools becomes another source of failure.

Dermatologists can screen, normalize the diagnosis, treat physical consequences, and refer specifically for HRT rather than generic counseling. Mental-health clinicians should understand hair and skin differentials and coordinate with dermatology when lesions change. If specialist access is limited, guided self-help or teletherapy may be preferable to no active treatment, provided that risk is assessed and progress is monitored.

4.8 RELAPSE PREVENTION AND REFRACTORY SYMPTOMS

Relapse prevention begins before acute treatment ends. The patient identifies early warning signs, high-risk transitions, effective competing responses, support contacts, and criteria for a booster. Practice is deliberately generalized to travel, examinations, conflict, illness, fatigue, screen use, and private grooming. A lapse is framed as data about an unaddressed cue rather than proof that treatment failed. This stance reduces shame and allows rapid revision of the functional plan.

Persistent symptoms should prompt verification that HRT was delivered with sufficient specificity and practice. Clinicians should reassess ADHD-related inattention, depression, anxiety, obsessive-compulsive symptoms, trauma-related arousal, autism-related sensory needs, tic phenomena, body dysmorphic concerns, substance use, sleep, and primary dermatologic triggers. Escalation can include ComB, acceptance-enhanced behavior therapy, more intensive practice, family work, or an evidence-informed pharmacologic adjunct.

Surgical or cosmetic repair should be timed carefully. Hair transplantation, scar procedures, or repeated acne extraction will not treat the underlying behavior and may provide new targets if control is unstable. Conversely, medically appropriate dermatologic care should not be withheld as punishment for ongoing symptoms. Shared criteria for behavioral stability and aftercare help align expectations.

4.9 EVIDENCE LIMITATIONS AND PRIORITIES

Most behavioral trials are small, recruit motivated participants, and cannot fully blind patients or therapists. Waiting-list and minimal-attention controls do not equal credible active therapy, and therapist expertise may inflate efficacy relative to routine practice. Outcome scales and response definitions vary, adverse events of psychotherapy are seldom measured, and long-term follow-up is incomplete. ED research has additional uncertainty from evolving diagnostic terminology and mixed treatment packages.

Future trials should use common outcome sets, blinded independent ratings, functional and dermatologic outcomes, adherence measures, and follow-up beyond one year. Dismantling studies could determine when stimulus control, acceptance, emotion regulation, or sensory substitution adds to core HRT. Direct TTM–ED comparisons should test moderation rather than merely compare separate within-group changes. Implementation research is equally important: scalable therapist training, culturally adapted care, family interventions, digital support, and strategies for dermatology settings may produce more population benefit than another small efficacy trial.

5 CONCLUSION

HRT is the behavioral foundation and preferred first-line treatment for both TTM and ED. Its active clinical logic is simple but demanding: detect the earliest cue, interrupt the motor sequence with an incompatible response, change the environment, and reinforce repeated practice. Functional analysis and enhanced behavioral components allow the protocol to address automatic behavior, focused urges, sensory reinforcement, perfectionism, and emotion regulation.

The evidence is not symmetrical. Randomized trials and meta-analysis provide stronger certainty for TTM, while controlled ED studies are fewer and more heterogeneous but still support HRT-based care. No direct trial proves greater intrinsic efficacy in either disorder. Treatment should therefore be offered confidently to both groups while uncertainty is described accurately. Long-term care requires measurement, relapse planning, dermatologic treatment, and selective adjunctive medication.

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