Hair-Focused Repetitive Behavior Disorders & Hair Care

Experiences and Possibilities for Intervention

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Andrea Linda Hollatz

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This dissertation was accepted by the Faculty of Human Sciences
of the University of Cologne in June 2026.

For my 4th cousin

Dr. med. Elisabeth Danisch, née Hollatz
Born on August 28th, 1893, in Strasburg, West Prussia
Doctorate conferred on December 23rd, 1918, in Königsberg

In the sea of ancestors, I found you.
Thank you for inspiring me and broadening the path for all women.

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Table of Contents

1. Summary

Trichotillomania (TTM), also known as hair-pulling disorder (HPD), is part of the group of hair-focused repetitive behavior disorders (HFRBDs) and poses diagnostic and therapeutic challenges due to its heterogeneous presentation and the complex interplay of behavioral, emotional, and sensory factors. While reliable assessment is essential for diagnosis and treatment planning, a purely symptom-focused approach is ideally complemented by consideration of affected individuals' lived realities, which shape and maintain the disorder.

This dissertation seeks to bridge assessment, embodied experience, and a novel intervention by presenting three studies that integrate psychometric validation with quantitative and qualitative exploration of hair-pulling and, specifically, hair-care-related behaviors and experiences, with change among affected individuals.

The first study establishes the validity of a disorder-specific self-report measure by translating the Beliefs in Trichotillomania Scale (BiTS) into German, thereby providing an additional tool for more accurate clinical assessment for German-speaking clinicians. The second study examines hair-care practices alongside symptomatic hair-pulling behaviors, with particular interest in textural and cognitive triggers, and experiences with hair professionals. The third study probes effects of a mindfulness-based hair appointment and explores the potential role of the relationship between affected individuals and hair professionals. Together, these studies combine diagnostic precision with a deeper understanding of the personal and embodied dimensions of HFRBDs, supporting a responsive and individualized care.

2. General Introduction and Integration

The inspiration for this research project stems from the author's lived experiences with Body-Focused Repetitive Behavior Disorders (BFRBDs) and her work with hair professionals and individuals affected by HFRBDs in the field of hair care. Integrating these self-experienced and practice-based observations with behavioral, cognitive-affective, and emotion-regulation models of HFRBDs raised a fundamental question about the role of the physical hair stimulus itself: Does hair-pulling behavior change when the primary target of the behavior is temporarily altered, for example, through washing, or removed, through cutting or shaving? This question extends to whether individuals selectively search for hairs with specific sensory or visual characteristics, for example, coarse or dry hair, during pulling episodes, and whether the absence of these characteristics may influence urge intensity, behavioral frequency, or perceived controllability.

A prerequisite for investigating HFRBDs across contexts is a valid, conceptually grounded assessment of the behavior itself. Given the heterogeneity of pulling patterns, triggers, and maintaining factors, reliable measurement of central behavioral and cognitive aspects is essential in clinical research. Study 1, therefore, focuses on the validation of the German version of the Beliefs in Trichotillomania Scale (BiTS). The primary aim of this study was to examine the psychometric properties of the instrument when implemented in German for the first time. In this context, the BiTS was administered alongside Study 2, contributing an additional validated German self-report measure without serving as a basis for substantive behavioral characterization.

Within the Comprehensive Behavioral (ComB) model (Mansueto et al., 1997), the interaction among sensory input, repetitive hand movements, and situational contexts in the initiation and maintenance of pulling behavior has been highlighted. In line with this perspective, study 2 examines hair-care behaviors and routines among individuals with HFRBDs, addressing a domain that has received limited empirical attention in clinical research. Independently, study 3 investigates short-term changes in hair-pulling behavior following a mindfulness-based hair appointment. While the

results do not permit causal conclusions, they suggest that temporary changes in hair properties, together with predictable interpersonal and environmental conditions, may positively influence established pulling patterns.

The term *hair-focused repetitive behavior disorders (HFRBDs)* is used in this dissertation as an umbrella term to reflect emerging research and clinical perspectives that conceptualize TTM neither as an isolated condition nor as a stand-alone diagnosis, but as part of a broader cluster of repetitive behaviors specifically involving hair, which share overlapping phenomenology, maintaining mechanisms, and lived experience beyond hair pulling alone. Table 1 provides an overview of HFRBDs described in the literature.

Table 1

Overview of HFRBDs

Term	**Repetitive Behavior**
Trichocryptomania	Breaking the hair off above the scalp
Trichodaknomania, Trichodaganomania	Biting one's hair
Trichophagia, Trichophagy, Trichotillophagy	Eating one's hair
Trichorrhizophagia	Eating the root of one's hair
Trichorrexomania	Cutting one's hair with one's fingernails
Trichoteiromania	Rubbing the scalp hair to soothe an itching sensation
Trichotemnomania	Cutting one's hair or specifically split ends off
Trichotillomania, Hair Pulling Disorder	Pulling one's hair out

Note. Multiple historical and alternative terms are grouped within a single row when they refer to the same HFRB.

When allocating HFRBDs within the broader BFRBD spectrum, it is helpful to distinguish functionally distinct subgroups rather than treating BFRBDs as a uniform category. Across the full spectrum of BFRBDs, five overarching subgroups are proposed in the present research based on the predominant bodily focus and behavioral function: oral activity–related behaviors; pathological body care behaviors; behaviors involving self-inflicted pain; a combined subgroup encompassing snapping, cracking, biting, and gnawing behaviors; and behaviors characterized by the itch–scratch cycle. Within this framework, HFRBDs are conceptualized as encompassing a subset of these subgroups, namely oral activity–related behaviors, pathological body care behaviors, and behaviors

characterized by the itch–scratch cycle. Delineating pathological body care from other BFRBD subgroups allows for a more precise examination of mechanisms, lived experiences, and intervention targets specific to hair-focused behaviors. To situate HFRBDs within the broader BFRBD spectrum, Appendix M_A provides a comprehensive overview.

2.1. Symptomatic Behavior and Lived Experience

Individuals affected by HFRBDs engage in hair pulling, tearing, or cutting with an intensity and frequency that correlate with emotional, mental, physical, or social distress. The behavior may serve to regulate emotions, including anger, anxiety, boredom, frustration, grief, overwhelm, and sadness. Physically, it can be a response to exhaustion, nervousness, under-, or overstimulation. Mentally, retreating into an inner space offers a temporary escape from decision-making and navigating difficult life situations. In this state, the focus is on locating, altering, or removing hair that does not feel like it belongs (Woods & Houghton, 2014). The repetitive act helps release tension, and the self-touching can be soothing, trance-inducing, or stimulating. Various methods are used for hair pulling, such as pinching a single hair with the thumb and index finger, using fingernails, tweezers, scissors, or even teeth. The act may be abrupt or involve a preparatory phase of seeking or feeling for a “target” hair. What happens after pulling also varies widely: individuals may drop the hair, examine it, collect it, or put it near or in the mouth to feel its texture. Some may chew or swallow the hair. HFRBDs can be automatic or focused. Automatic pulling occurs without conscious awareness, often during activities such as watching TV, driving, or talking on the phone. The individual may not realize they are pulling, or may even be asleep. Focused pulling is intentional and typically arises during heightened emotional states such as anxiety, restlessness, anger, despair, or overwhelm. (Flessner et al., 2008).

2.2. Learning-Based and Contextual Models of BFRBDs

Rather than providing a comprehensive account of etiological factors such as genetic liability or neurobiological vulnerability, this section focuses on learning-based and contextual mechanisms that are particularly relevant to understanding symptom emergence and maintenance in BFRBDs.

Research on the development of BFRBDs has been primarily informed by behavioral learning models that interact with individual vulnerability factors, including inherited dispositions (Christenson et al., 1991). Across disorders, symptoms often emerge in response to identifiable initial triggers that draw focused attention to the body. In HFRBDs, such triggers may include a single stray, coarse, or unusually textured hair, and early engagement is driven by curiosity, mild aversion, or attempts to correct a perceived irregularity (Mansueto et al., 1997). Comparable onset patterns have been described in SPD, in which attention to a pimple, scab, or uneven area of skin may trigger repeated touching or picking behaviors that persist beyond the resolution of the original lesion (Odlaug & Grant, 2008).

With repetition, these behaviors become increasingly shaped by recurring internal and external cues. Visual, tactile, and other sensory inputs may serve as particularly prominent triggers, sometimes operating independently of conscious intention (Flessner et al., 2008). Physiological states such as heightened arousal or stress, as well as hormonal fluctuations, have been associated with increased vulnerability to engagement. Emotional processes play a central role, with both negative affect and heightened excitement commonly preceding episodes of pulling or picking (Roberts et al., 2013). Cognitively, urges are often accompanied by thoughts of uniformity, control, perfection, or anticipated relief.

Over time, neutral activities and specific environmental contexts may become reliably associated with urges through associative learning. As a result, behaviors that initially serve a corrective or exploratory function may develop into habitual, self-reinforcing patterns of pathological body-focused care.

2.3. Psychological and Contextual Factors

Psychological and contextual factors shape how HFRBDs are expressed, maintained, and integrated into daily life. At a psychological level, attentional processes play a central role, with affected individuals reporting a narrowed focus on bodily sensations or visual details, often accompanied by reduced awareness of time or surroundings. This behavior may coexist with heightened self-monitoring and evaluative processes related to the control of bodily appearance, often through correction.

Emotion regulation is closely intertwined, as engagement may reduce distress, modulate arousal, or provide temporary relief from internal overload, while simultaneously reinforcing the behavior through short-term relief. Beliefs and appraisals further contribute, including intolerance of asymmetry, incompleteness, or uncertainty, as well as assumptions about the necessity of intervention. In this research project, the validation and implementation of the BiTS provided insight into three types of beliefs: perfection, low-coping efficacy, and negative self-belief.

Contextual factors may influence availability and opportunity, with low-demand or private settings, such as being alone, driving, or reading, facilitating engagement by minimizing external interruption. Over time, these contexts may acquire cue properties, eliciting urges independent of internal state. Cultural norms surrounding body care and appearance may further legitimize or obscure pathological engagement, particularly in behaviors that resemble normative body care.

Personal and professional hair care can be considered contextual factors. Although the results of studies 2 and 3 showed that both seem to have a symptom-reducing effect, for some individuals, the opposite is true.

Understanding HFRBDs as behaviors embedded within a psychological and contextual framework highlights why purely suppressive strategies are often insufficient. Effective interventions must address not only the observable behavior but also the attentional, emotional, and contextual

processes that sustain it. The following section, therefore, focuses on treatment approaches that target these interacting mechanisms.

2.4. Treatment Approaches

Treatment approaches for HFRBDs have evolved from symptom-focused behavior suppression toward models that address underlying regulatory, attentional, and contextual processes. Early interventions emphasized habit–reversal–based strategies and stimulus control, aiming to increase awareness of urges, interrupt automatic responding, and modify environmental cues (Franklin et al., 2023). While these approaches remain effective for many individuals, recent evidence from a large randomized controlled crossover trial indicates that concurrently applying multiple behavioral techniques, including habit reversal training and variants of decoupling, produces additive improvements in BFRB symptoms and may extend benefits to quality of life and depressive symptoms, thereby supporting integrative, multi-component intervention models (Moritz et al., 2023).

Alongside these developments, increasing attention has been given to the sensory and situational dimensions of HFRBDs. Interventions that consider tactile experience, embodied attention, and context-dependent engagement seek to address mechanisms that are not easily captured by cognitive or purely behavioral techniques (Rapp et al., 1999). Rather than aiming solely at suppression, such approaches emphasize working with urges as they arise, modifying the conditions under which engagement becomes likely, and supporting alternative forms of regulation within everyday contexts (Hertenstein et al., 2012; Woods & Twohig, 2008).

Taken together, contemporary treatment models underscore the importance of process-oriented, context-sensitive interventions. By addressing not only observable behavior but also the attentional, emotional, and environmental factors that sustain it, these approaches provide a conceptual foundation for empirically examined applied interventions.

3. Overview of the Empirical Work

3.1. Summary of the Empirical Studies

The empirical work of this dissertation comprises three studies that address complementary levels of inquiry within HFRBDs, ranging from assessment to lived experience and applied intervention. Study 1 focuses on measurement and establishes the psychometric validity of the German version of the Beliefs in Trichotillomania Scale (BiTS-D), supporting its use in clinical and research contexts. Study 2 adopts a descriptive approach to examine hair-pulling behavior in relation to everyday hair-care practices, highlighting sensory, cognitive, and contextual aspects that are typically underrepresented in symptom-based models. Study 3 evaluates a mindfulness-based hair appointment as a low-threshold intervention and documents changes in hair-pulling urges and behavior, while also exploring relational and contextual factors associated with the hair professional setting. Taken together, the studies build sequentially, moving from assessment to experience to intervention, and provide an empirically grounded contribution to understanding and addressing HFRBDs in more context-sensitive ways.

The following section presents the abstracts of the three empirical studies included in this dissertation, providing a concise overview of their aims, methods, and main findings. The abstracts are presented as originally submitted and published. The studies are introduced using abbreviated titles for orientation, while the full published article titles are provided in the subsequent article sections.

Study 1: Validation of the German Beliefs in Trichotillomania Scale (BiTS-D)

Study 2: Hair Care and Hair-Focused Repetitive Behaviors

Study 3: Mindfulness-Based Haircut and Hair-Pulling Behavior

3.2. Empirical Studies

3.2.1. Study 1: Validation of the German Beliefs in Trichotillomania Scale (BiTS-D)

Trichotillomania (TTM), a body-focused repetitive behavior disorder characterized by pathological hair pulling, remains under-researched. The Beliefs in Trichotillomania Scale (BiTS) is a self-report instrument assessing the cognitions of negative self-belief, low coping efficacy, and perfectionism. This study evaluated the psychometric properties of the German version of the BiTS (BiTS-D). In a cross-sectional study, the BiTS-D was administered to 163 participants with TTM (*M* = 32.3; *SD* = 10.7; age range = 18 – 79 years). The psychometric evaluation included confirmatory factor analysis (CFA), reliability analyses (Cronbach's α, item properties), and correlation analyses with related instruments. CFA replicated the original three-factor structure. Reliability analyses, including inter-item and Spearman correlations, supported the construct, content, and convergent validity of the BiTS-D. The BiTS-D demonstrated strong reliability and validity, establishing it as a robust instrument for assessing TTM-related cognitions in German-speaking populations.

3.2.2. Study 2: Hair Care and Hair-Focused Repetitive Behaviors

Background and Aims: Hair-Focused Repetitive Behavior Disorders (HFRBDs), commonly associated with trichotillomania (TTM), including hair pulling, manipulation, or ingestion, can cause significant emotional, physical, and social distress. This study aimed to (1) identify hair care-related behaviors among individuals with HFRBDs; (2) explore how these practices relate to hair-pulling behaviors; and (3) examine the potential role of hair professionals in supporting affected individuals. Methods: An online survey was conducted with adult participants (*n* = 195) who self-identified as having HFRBDs involving scalp hair. The survey assessed hair-pulling behavior, personal and professional hair care routines, and perceived effects of these practices. Both quantitative and qualitative data were collected and analyzed. Results: Findings showed that constructive hair care practices often coexisted with hair-pulling behaviors. Participants reported that washing (54.1%) and

haircutting (34.1%) helped reduce pulling urges, while styling (8.7%) and combing/brushing (15.4%) had minimal effect. Notably, 27.7% stated that their own touch increased urges, while 9.8% found that another person's touch reduced them. Thematic analysis of 501 open responses revealed categories such as pre-pulling routines, sensory responses to hair texture, and varied experiences with hair salons. Conclusion: The study highlights the complex relationship between hair care and HFRBDs. Tailored hair care strategies may offer meaningful support for individuals with HFRBDs and could be integrated into guidance provided by clinicians, dermatologists, and hair professionals. Personalized interventions may improve overall management of the condition.

3.2.3. Study 3: Mindfulness-Based Haircut and Hair-Pulling Behavior

Individuals with Trichotillomania (TTM) or related hair-focused repetitive behaviors engage in recurrent hair pulling that negatively impacts their quality of life. At the same time, hair care remains a central part of their hygiene and beauty routines. This study examined the effects of a mindfulness-based haircut appointment, delivered by trained hair professionals, on pathological hair-pulling behavior. In an open-label intervention study, 43 adult females with TTM completed measures of hair-pulling behavior and maintained hair-pulling diaries for 14 days before and after the appointment. Results showed significant reductions in hair-pulling urges and time spent pulling hair post-appointment, with sustained improvements at 14, 30, and 60 days, as documented in diaries and the Massachusetts General Hospital Hairpulling Scale.

Furthermore, participants were satisfied with the appointment, attributing this to the empathy and non-judgmental communication exhibited by the hair professionals. These findings suggest that haircut appointments administered with compassion and understanding may significantly reduce hair-pulling behaviors and improve overall well-being. The results underscore the importance of training hair professionals to provide informed, supportive services to individuals affected by TTM.

4. Original Publications

4.1. Validation of the German Beliefs in Trichotillomania Scale (BiTS-D)

Original publication: Hollatz, L., & Gerlach, A. L. (2025). Validation of the German Beliefs in Trichotillomania Scale (BiTS-D). *Zeitschrift für Klinische Psychologie und Psychotherapie*, *54*(1), 3–15. https://doi.org/10.1026/1616-3443/a000793

4.2. Hair Care and Hair-Focused Repetitive Behaviors: A Descriptive Cross-Sectional Study

Original publication: Hollatz, A. L., & Gerlach, A. L. (2026). Hair care and hair-focused repetitive behaviors: A descriptive cross-sectional study. *Health Science Reports*. https://doi.org/10.1002/hsr2.71730

4.3. The impact of mindfulness-based haircuts on individuals affected by trichotillomania and related hair-focused repetitive behavior disorders and their hair-pulling behavior: A pilot study

Original publication: Hollatz, A. L., & Gerlach, A. L. (2026). The impact of mindfulness-based haircuts on individuals affected by trichotillomania and related hair-focused repetitive behavior disorders and their hair-pulling behavior: A pilot study. *Journal of Obsessive-Compulsive and Related Disorders*, 48, 100991. https://doi.org/10.1016/j.jocrd.2025.100991

5. Overarching Discussion of All Included Articles, Conclusions, and Implications

This thesis examined the role of hair care, hair-related experiences, and professional hair interactions in individuals affected by HFRBDs. Across three complementary studies, the findings demonstrate that hair and scalp care are meaningful contextual variables that can influence symptom expression, emotional experience, and perceived safety. Importantly, the results suggest that interpersonal and environmental factors in hair-related settings may be more influential than the physical state of the hair itself, highlighting new avenues for psychosocial intervention and interdisciplinary collaboration.

Study 2 provided initial evidence that hair care and hair-related experiences are meaningfully associated with symptomatic behavior. Participants reported predominantly positive effects of hair care on their symptomatic behavior. They indicated that scalp and hair conditions can trigger pulling behavior. This finding underscores the dual role of hair as both a potential regulatory resource and a vulnerability factor. Notably, many participants reported allowing others to touch their hair, challenging common assumptions about social avoidance and suggesting a heterogeneous spectrum of interpersonal comfort that may depend on context, trust, and perceived understanding.

The validation of the BiTS within this study supports the feasibility of systematically assessing hair-related cognitive triggers and experiences. However, the breadth of the original Hair Care Inventory for Trichotillomania may have diluted the interpretability of specific mechanisms. In future research, a more focused assessment of the most frequently endorsed and clinically relevant items may yield richer insights into how specific hair care practices influence hair-pulling behavior

Additionally, excluding individuals wearing wigs or head coverings, such as hijabs, limits the cultural and contextual generalizability of the findings. Future research should explicitly include these groups, as hair concealment and cultural hair practices may fundamentally alter both trigger exposure and coping strategies.

Perhaps the most unexpected and theoretically informative finding emerged in Study 3. Contrary to the initial assumption that freshly cut, visibly healthy hair would be the primary source of positive feedback, the results indicate that the interaction with the hair professional itself was the central source of benefit. Feeling understood, respected, and safely accompanied appeared to outweigh the physical outcome of the haircut. This finding aligns with relational and emotion-regulation models of HFRBDs and suggests that interpersonal attunement may function as a powerful modulator of symptom-related distress. However, the lack of more detailed qualitative questioning limits a deeper understanding of which specific aspects of the professional interaction were most important. Future studies would benefit from systematically assessing perceived empathy, nonjudgmental communication, and trauma-informed practices in hair care settings.

The absence of significant changes in self-esteem following the haircut experience suggests that brief, situational interventions may primarily affect momentary emotional safety rather than the broader self-concept. This distinction is important for setting realistic expectations about the scope of hair-related interventions.

Taken together, the findings demonstrate that hair-care-related contexts constitute a previously underrecognized yet clinically meaningful domain in the lives of individuals with HFRBDs. Beyond physical hair and scalp health, the results highlight the relevance of relational, emotional, and situational qualities embedded in hair care experiences, which have been largely neglected in existing clinical models. By empirically integrating hair care practices into the study of HFRBDS, the present work extends current conceptualizations and points to concrete implications for interdisciplinary collaboration between mental health professionals and trained hair professionals. Moreover, the findings provide a basis for future research that systematically combines quantitative assessment with in-depth qualitative approaches to further explore these context-dependent mechanisms.

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7. Appendices (Mantle Text)

7.1. Appendix M_A: Overview of Body-Focused Repetitive Behavior Disorders

Table M_A1

Overview of Body-Focused Repetitive Behaviors

Body Part	Term	Repetitive Behavior	Tools	Micro-Actions	Possible consecutive Injuries	Visual consequences	Subgroup
Ears	Compulsive ear cleaning	Cleaning the ears to remove ear wax	Fingers, Tools, cotton swab	Digging, searching	Inner ear and ear drum damage, risk of infection Impeded hearing	Skin changes and irritations	Body Care
Eyes	Mucus Fishing Syndrome	Rubbing the eyes Cleaning the eyes to remove excretions	Fingers, cotton swab	Searching, wiping	Skin irritations, risk of infection, impeded seeing		
Hair	Trichocryptomania	Breaking the hair off above the scalp	Fingers, nails	Scanning, looking, searching, separating, breaking off	Osteoarthritis, joint deseases caused by repetitive motions	Uneven lengths ‘Ruffled feathers’ look	
	Trichodaknomania, Trichodaganomania	Biting one’s own hair	Teeth	Chewing, licking, sucking, biting	Damage to the enamal of the teeth, risk of infection		Oral Activity
	Trichophagia, Trichophagy, Trichotillophagy	Eating one’s own hair	Mouth, lips, tongue, teeth	Stroking along one’s lips, licking, sucking, chewing, swallowing	Trichobezoar (Rapunzel Syndrome), gastric hair ball obstructing parts of the digestive system, extreme cases are life-threatening	Externally not visible	
	Trichorrhizophagia	Eating the root of one’s hair					
	Trichorrexomania	Cutting the hair with one’s finger nails	Finger nails	Scanning, looking, searching, cutting	Osteoarthritis, joint desease caused by repetitive motions	Uneven lengths ‘Ruffled feathers’ look	Body Care
	Trichoteiromania	Rubbing the head hair also to soothe an itching sensation	Hands, fingers	Rubbing, scratching		Very short stubbly hair	Itch-Scratch-Cycle

	Trichotemnomania	Cutting one's hair or split ends off	Scissors, razors Shaving tools	Scanning, looking, searching, pulling, separating, cutting	Osteoarthritis, joint desease caused by repetitive motions; Scarring caused by accidental cutting one's skin	Uneven lengths 'Ruffled feathers' look	Body Care
	Trichotillomania, Hair Pulling Disorder	Pulling one's own hair out	Fingers, nails, lips, teeth, tweezers, scissors	Scanning, looking, searching, separating, pulling	Osteoarthritis, joint desease caused by repetitive motions Risk of infection	Uneven lengths 'Ruffled feathers' look Bald patches Overall thinner hair Missing eyebrow hair and eye-lashes	
Nails	Onychodaknomania	Nail biting causing painful pleasure	Teeth	Biting	Risk of infection Scarring, deformed nails	Very short gnawed off nails Nail bed deformation Skin changes and irritations	Self-inflicted pain
	Onychophagia, Onychophagy	Nail biting Nail cleaning	Teeth	Using teeth to go under nails			
	Onychotemnomania	Nail cutting	Fingers, tools: nail clippers, knife, file, scissors	Scanning, cutting			
	Onychoteiromania	Nail rubbing until the nails get really thin		Nail rubbing		Thin, brittle nails	
	Onychotillomania	Nail picking, nail tearing	Fingers, nails, teeth, tools	Searching, separating, pulling			
Nose	Mucophagy	Eating nasal secretions	Mouth, lips, tongue, teeth	Eating, swallowing	Risk of infection	Externally not visible	Oral Activity
	Rhinotillexomania	Nose picking	Fingers, tools	Digging, searching	Risk of infection Deformation of nose, skin irritations, impedeing breathing	Deformation of nose, skin irritations	Body Care
Skin	Acne excoriée	Specifically picking and manipulating acne lesions	Fingers, nails, tweezers	Scanning, looking, searching, removing	Risk of infection Scarring	Skin changes and irritations, Scars	

	Dermatillomania, Excoriation disorder, Skin Picking disorder	Skin picking, removing	Fingers, nails, mouth, lips, teeth, tweezers, scissors	Scanning, looking, searching, removing			
	Pruritus	Scratching	Fingers, nails, mouth, lips, teeth	Scratching, scraping			Itch-Scratch-Cycle
	Dermatodaxia, Dermatophagia, Dermatophagy	Skin biting, gnawing eating	Mouth, lips, tongue, teeth	Stroking along one's lips, biting licking, sucking, chewing, swallowing			Oral Activity
	Dermatothlasia	Rubbing and pinching oneself to form bruised areas	Mouth, teeth, fingers	Rubbing, pinching			
	Perionychophagia	Biting off the skin around the finger nails	Teeth				
	Perionychotillomania	Tearing the skin around the finger nails off	Teeth, fingers				
Mouth	Cheilitis factitia	Lip licking	Lips, tongue	Licking, rubbing, chewing			
	Morsicatio buccarum	Cheek biting	Teeth	Biting, chewing		Externally not visible	
	Morsicatio labiorum	Lip biting					
	Morsicatio linguarum	Tongue biting					
	Morsicatio mucosae oris	Mucous membrane of the mouth					
	Cavitadaxia	Collective term for lip-cheek-tongue biting					
	Bruxism	Teeth grinding, jaw clenching and moving, lip grinding	Mouth, jaw, tongue, teeth	Grinding, clenching	Teeth deformation Jaw deformation TMJ disorders	Teeth and Jaw deformation	
Fingers	Finger and thumb sucking	Finger and thumb sucking	Mouth, lips, tongue, teeth	Sucking	Osteoarthritis, joint desease caused by repetitive motions		
Fingers Joints	Snapping one's fingers, Cracking one's joints	Snapping one's fingers Cracking one's joints	Hands, fingers, arms, extremities	Snapping, Cracking	Osteoarthritis, joint desease caused by repetitive motions	Joint deformation	Snapping, Cracking, Biting and gnawing
	Pseudo-Knuckle Pads	Biting and gnawing on the knuckles		Biting and gnawing	Swollen knuckles		

7.2. Appendix M_B: Author Contributions

My contributions to this dissertation encompassed the full conceptualization, design, and execution of the research project across all included studies. These contributions included conceptualization, methodology development and validation, mixed-methods study design, intervention development and clinical implementation, as well as participant recruitment, investigation, data collection, data curation, and formal quantitative and qualitative analyses. I was responsible for integrating and interpreting results across studies and for coordinating, managing, and executing the dissertation project. I drafted the original versions of all manuscripts and dissertation chapters and contributed substantially to the review and editing of all written materials.

Alexander L. Gerlach contributed to the conceptualization of the dissertation project and provided continuous methodological and scientific supervision. He supported the interpretation of findings, offered critical feedback throughout all phases of the research process, and contributed to the review and editing of the manuscripts.