

DIAGNOSIS, EVALUATION, AND TREATMENT OF
TRICHOTILLOMANIA

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Abstract

Trichotillomania is a hair-pulling disorder that affects millions of people. The people who meet the criteria for this diagnosis often find themselves missing patches of hair on various parts of the body. Although some do seek help from a doctor or therapist, many cases go undiagnosed or even unnoticed if the person chooses to hide their disorder. This is the case for those who feel ashamed or embarrassed by their compulsivity, and the ability to cover up perceived flaws may become second-nature. Very little research exists to provide answers as to causation; however, some data suggests that there are neurological abnormalities. Personal assessment reveals some similarities between individuals such as when and where pulling occurs, whether other disorders are comorbid, or what areas and textures are chosen for removal. Treatment options such as therapy and medication exist, however, they are not as well-informed as they could be due to the lack of research. Nonetheless, a number of people who suffer from this disorder are able to persist in a way that allows for follicle growth long-term. The purpose of this thesis is to address existing research and evaluate the primary findings that classify diagnosis and treatment methodology.

Diagnostic Criteria

According to the 2013 edition of the *Diagnostic and Statistical Manual*, trichotillomania is defined as "...recurrent pulling of one's hair resulting in hair loss." The person often makes repeated attempts to stop the behavior, and also suffers from emotional or social impairment (American Psychiatric Association, 2013). The classification as an obsessive-compulsive disorder is up for debate and possibly a proposed change for DSM-6, primarily because the person pulling the hair almost always finds pleasure in the moment and feelings of remorse do not often seem to be present during the ritual.

In individuals with OCD, ritualistic behavior does not necessarily cause pleasure, but rather, a feeling of annoyance while the ritual is being performed (Jacofsky, Santos, Khemlani-Patel, & Neziroglu, n.d.). Trichotillomania may result in annoyance with one's self after the fact, however, the ritual and immediate action leads to relief and pleasure from removal of the hair. Ritualistic behavior is also a large component of OCD, whereas trichotillomania is not classified as a ritual. The act of pulling can occur for a variety of reasons from boredom to nervousness, and it is not performed in a specific or predictable manner (Woods & Houghton, 2014).

The outward appearance of trichotillomania, coupled with the acknowledgement by the sufferer of consistent pulling, is often enough for a diagnosis to be made. Clinicians and doctors may assess bald patches that are not explained by other things. Examples of this would be alopecia or chemotherapy resulting in hair loss. Clinical assessment can confirm that the client is, in fact, recurrently pulling out their own hair

while at the same time making repeated attempts to stop. It is common for people to pluck hair for cosmetic purposes, so this distinction is a crucial diagnostic tool.

Trichotillomania is heavily comorbid with anxiety and obsessive-compulsive disorders (Farhat, Olfson, Li, Telang, & Bloch, 2019). While this has been repeatedly shown across a number of studies, there is little clinical research assessing potential benefit of targeting these comorbidities in treatment. Therefore, future research should evaluate whether significant results arise from this process. The implications of this may lead to more precise and productive treatment, given that there is a possibility that treating other disorders may mediate behavior.

Some people with trichotillomania may eat their hair following removal of each piece. While not as common, this can lead to serious medical conditions when the intestines are unable to digest the strands. This occurs primarily when those who pull from their head also have long hair that is more likely to ball up when swallowed. The eating of hair associated with trichotillomania is called trichophagia, and the subsequent ball of hair is called a trichobezoar.

Trichotillomania is classified as a body-focused repetitive behavior (BFRB). The primary classification of most BFRB's is that the behavior causes clinically significant distress and injury to the body. This group of disorders also includes dermatillomania, a skin-picking disorder, which accompanies trichotillomania as the most prominent BFRB's. They are similar in terms of impulsivity and classification in the DSM-5. Each is marked by repeated attempts to both remove perceived imperfections (prickly hair or scabbing, for example) and also stop the behavior altogether.

Similar to the plucking of hair for cosmetic purposes, some people occasionally pick at scabs or loose skin in a way that does not cause significant distress. Again, this is a valuable diagnostic tool necessary for distinguishing between normative and non-normative behaviors. Nail and lip biting are included as BFRB's but are less prominent than the aforementioned disorders that currently claim over ten million Americans, alone (Galazka, 2018).

Behavioral and Biological Theories

The assessment and treatment of trichotillomania is dominated primarily by two schools of thought: biological and behavioral theories. Although there is no definitive causation that has been agreed upon in this field, the theories surrounding the possibility of causation allow for some treatment methods to take place. Because the DSM-5 allows for diagnosis to take place regardless of theory, the primary difference lies within treatment procedures. There is existing research on both biological and behavioral treatments, but again, no definitive causation has been determined and people with the disorder often find themselves seeking help in a very experimental way.

Biological approaches to treating trichotillomania are based on the assumption that the disorder is inherent, unlearned, and not a result of the environment or external stimuli. The leading biological theory at this time is that there is disruption in chemical messengers or there is some kind of genetic predisposition that is similar to medical illnesses (Mental Health America, n.d.). Medication is the most often used treatment following this theory, because the neurological pathways can theoretically be targeted. Medication, however, is rarely successful on its own when not paired with therapy. It is mainly effective in treating comorbid disorders such as depression and anxiety (Mental Health America, n.d.).

Behavioral approaches do not rely on the assumption that medication can treat the disorder due to genetic or neurological properties. Instead, they suggest that therapeutic treatment is most effective in stopping the behavior. Cognitive-behavioral therapy, or CBT, is one of the leading behavioral approaches to combat symptoms. This therapy usually begins by addressing the times of day pulling occurs, emotions felt before and

after pulling, and whether other people are around (Cognitive Behavioral Therapy LA, n.d.). Patients can then learn to monitor triggers and subsequently eliminate situations that they believe lead to pulling.

Learning to accept the urges rather than fight them can be beneficial and using self-monitoring can reduce or stop long-term behavior. CBT is the most effective treatment for trichotillomania at this time (Cognitive Behavioral Therapy LA, n.d.). CBT has also shown to successfully treat anxiety and depression, which are often comorbid with trichotillomania. Some theorists believe that treating the comorbid disorders can help reduce pulling, but there is yet to be significant data suggesting that trichotillomania is a byproduct of other disorders.

Though separate in nature, these theories both overlap quite a bit. Biological and pharmaceutical treatments are often paired with CBT, because stopping medication would bring the behaviors back unless therapy is also used. CBT is less often paired with medication, because medication has not significantly shown to directly combat trichotillomania in the same way therapy can. Studies should examine efficacy of each, separate theory, and then examine the effectiveness of combining them.

Neurological Assessment

In recent years, trichotillomania research has begun targeting specific brain regions. Previous research focused heavily on defining the disorder and examining societal and personal variables. By using the neurological approach, brain activation can be analyzed and possibly targeted for treatment. Recognition of activated brain areas in people with trichotillomania may lead to studies evaluating efficacy of specific medications.

Several different brain regions have been assessed through scientific research, but almost all of the studies suggest that larger, more generalizable samples are used in the future. A majority of the studies use brain-scanning devices such as functional magnetic resonance imaging (fMRI).

The first study of note found that there was excess cortical thickness in the right inferior frontal gyrus, which is the opposite of the reduced frontal gyrus found in OCD (Chamberlain et al., 2018). Another study found that brain tissue volume and white matter integrity was associated with symptom severity, especially in areas such as the anterior cingulate, temporal cortex, and frontal cortex (Bahn et al., 2018). Reductions in volume of the right amygdala and left putamen were found, along with significant structural abnormalities in the regions that affect regulation, inhibitory control, and habit generation (Isobe et al., 2018).

While limited, these findings suggest that there are, in fact, differences in brain regions between people with trichotillomania and people who do not have the disorder. The results are a starting point, which can now be used to further study brain regions in sufferers.

Personal Assessment

Individuals who have trichotillomania are often plagued with low self-esteem and intense desire to stop pulling behavior. The outward nature of pulling hair out may lead to self-image issues. People with the disorder usually report social or professional barriers (Woods & Houghton, 2014). Primarily for reasons associated with shame and embarrassment, the person may avoid social or recreational activities in their entirety. It may also be difficult for them to seek out employment opportunities or promotions (Woods & Houghton, 2014). A large part of their day outside of actual pulling is spent on physically covering bald patches via clothing, makeup, or wigs. Even after this, though, the person may avoid eye contact or close proximity with others.

Comorbidity with other disorders such as anxiety, depression, or OCD, is very common (Woods & Houghton, 2014). Because of this, a person may feel overwhelmed in their daily life. The emotional toll of trichotillomania has shown to be tremendous on its own, and the addition of other disorders leads to mounting mental instability. Some people who pull their hair out discard it immediately. Some rub the hair around in their hands, or even touch it to their lips. In extreme cases as mentioned above, a person may swallow the hair and cause internal damage over time (Woods & Houghton, 2014). These components of the disorder all take a personal toll on a sufferer's self-confidence, especially when medical attention is continuously required.

Several studies have analyzed the social impact of the disorder. Notably, a study evaluating avoidance behavior addressed social and personal habits related to everyday life in people with trichotillomania. It was concluded that those with trichotillomania avoided non-social goals, made attempts to conceal, and exhibited social avoidance,

relationship problem solving, and thinking about the future (Slikboer, Castle, Nedeljkovic, & Rossell, 2018). This only furthers the idea that those experiencing this disorder have experienced tremendous challenges in their daily lives.

With regards to public perception about the disorder, it may be beneficial to address common misconceptions about trichotillomania. Firstly, the very foundation of the word has the word “mania” in it. While this is a common suffix amongst clinical disorders, modern advocacy groups pressed to have the term removed in the revised DSM. Historically, “mania” has been used to describe a level of madness or violent behavior. Now, the DSM-5 has somewhat given in to the push for change, and the official diagnosis in the book is ‘trichotillomania (hair-pulling disorder)’ (Starcevic, 2017).

Other studies have evaluated public perception and provided evidence for stigma and negative biases. A study addressed this by providing several tasks and assessments to those with trichotillomania and those without the disorder (Stevenson, 2018). It was concluded that the public had a stigma towards this disorder because they perceived it to be “controllable”, especially when compared to “uncontrollable” disorders such as alopecia (which causes hair loss without pulling taking place). The implications here are two-fold; there is a clear bias surrounding people with the condition, and there is also a possibility that public education is limited. Therefore, future research should examine the impact of public education on perceived biases.

Treatment

Following the idea of biological and behavioral theory, treatment options primarily involve either medication or therapy. Treatments vary in amount of research conducted thus far, and they individually propose their own methodologies. However, the main goal of any treatment plan is to help the person suffering so that they can stop the behavior and lead a healthier life.

Because of the high rates of comorbidity, treatment can be targeted at multiple aspects outside of the actual hair-pulling. For example, medication is often used to treat symptoms of OCD, anxiety, and depression based on the idea that trichotillomania may be mediated when they are treated (Mental Health America, n.d.). That being said, there are currently no FDA-approved medications for specific treatment of trichotillomania. Pharmacologic treatments are generally inconclusive, and there is no “first line” option that is presented for treatment of this disorder (Farhat et al., 2019). In fact, many of the prescriptions that are immediately given to patients have the potential to worsen the behavior, rather than improve it.

This is especially true in medical settings when the first line of help sufferers receive are their general, family medicine doctors. While some certainly have the insight to provide thoughtful consideration as to pharmaceutical interaction, many do not have the background information on disorders like trichotillomania that would allow for this to take place. This may not be due to ignorance or ill-intent by any means, rather, the research on this area is too limited for them to all be fully educated.

The therapies used in treatment are mostly habit reversal training, CBT, or acceptance and commitment therapy (Mayo Clinic Staff, 2016). Habit reversal training

works by teaching the person to recognize moments of pulling and replace them with a distraction or another action. Acceptance and commitment therapy is not used as often as the other therapies available because it is mostly defined as accepting the disorder rather than redirecting or curing. CBT, as mentioned before, is the most common treatment for this disorder.

Existing research leans heavily towards CBT as a productive treatment option (Cognitive Behavioral Therapy LA, n.d.). Some medications can be paired with this to maximize treatment effect, but biological theory tends to not be as successful without therapeutic interaction. Treatment is very possible if the person is willing to recognize their own weaknesses, work with a therapist or doctor, and be consciously aware of pulling behavior so that they can combat specific triggers and situations.

Due to the relatively new nature of this field, many treatment studies have been experimental in nature. One of these took into consideration that research on pharmaceutical treatment was limited and proposed that the antioxidants in milk thistle would stop pulling behavior (Grant, Redden, & Chamberlain, 2019). The results were insignificant; however, they did find that time spent pulling per day decreased slightly. This is just one example of the emerging treatment ideas, which may seem unique in nature, but are attempting to fill in massive gaps in both research and treatment.

Research on gadgets and fidget toys is slowly emerging. Specifically, awareness devices that vibrate when a person's hand moves beyond the calibrated threshold. The vibrating alert functions that occur through a wrist monitor allowed for significant improvement in a large number of participants (Himle et al., 2018). This accompanies stress balls and fidget toys in current research endeavors.

Conclusions

Trichotillomania is a disorder that impacts the daily lives of millions of individuals. Research is limited, but currently leans towards cognitive-behavioral therapy as being the most effective treatment. This, paired possibly with medication and the emerging gadgets aimed at controlling behavior, may be the best pathway for clinicians to recommend given the research that is available. Future research should aim to address comorbidity, and whether it should be targeted for effective treatment. Research should also evaluate public stigma, especially as it relates to lack of information being available on these types of disorders. With regards to generalizing results, studies that have found some level of significance should be used as a baseline for replications to take place. The impact of this could lead to more significant results, more focused treatment, and subsequently, more effective results that could mean happier lives for those suffering from this disorder.

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