

Running head: TRICHOTILLOMANIA: EDUCATIONAL ISSUES

Trichotillomania: Educational Issues in Literature for Teachers

David Voth

University of Alaska Southeast

Submitted in partial fulfillment of the requirements of the Master of Education in

Special Education degree at the University of Alaska Southeast

RECOMMENDED: _____
Thomas Scott Duke, Ph.D., Committee Chair

Jill Burkert, Ph.D.

Jennifer Ward, M.L.I.Sc.

APPROVED: _____
Dean, School of Education: Larry Harris, Ph.D.

Date

Abstract

Twenty journal articles that examined the condition trichotillomania that are included in national journal databases created for educators were reviewed by a special education teacher. The articles were classified by publication type (e.g., empirical studies, descriptive articles, guides). Fourteen of the 20 articles were empirical studies. The studies were classified by research design (quantitative or mixed methods), the participants and data sources were identified, and the findings were summarized. The author analyzed the 20 articles utilizing a modified version of the Stevick-Collaizi-Keen method to develop themes that represent the essence of the literature. The four themes that emerged from the analysis include: (a) trichotillomania demographics; (b) social behaviors associated with trichotillomania; (c) trichotillomania and the school experience; and (d) trichotillomania treatments. The themes were connected to the role of the author as a special education teacher. Finally, the author reflected upon the changes the understanding illuminated by the analysis of the literature will have on his career.

Introduction

The Problem

Trichotillomania (TTM) is a term first used by the French dermatologist Hallopeau in 1889 to describe the disorder characterized by the chronic compulsion to pull out one's own hair (Papadopoulos, Janniger, Chodynicky, & Schwartz, 2003). *The Diagnostic and Statistical Manual of Mental Disorders*, (DSM-IV-TR) defines TTM as being characterized by the repeated failure to resist the urge to pull one's own hair, which results in a noticeable hair loss (American Psychiatric Association, 2000). TTM is considered an impulse-control disorder where a person suffers an increasing sense of tension associated with the urge to pull hair. Some people with TTM note a sense of tension prior to pulling hair, while others sense tension when trying to fight the urge to pull hair. Generally, an experience of gratification, pleasure, or sense of relief is experienced by people suffering from TTM when the act of pulling out hair is achieved (APA). People suffering from TTM predominately pull hair out from their scalp, but other sites may be included. The most commonly involved hair pulling sites by frequencies are, the scalp (75%), eyelashes (53%), eyebrows (42%), pubic region (17%), arm (10%), beard/face (10%), mustache (7%), leg (7%), chest (3%), and abdomen (2%) (Özcan, Öcan, & Ensari, 2003).

There is no general agreement as to the exact incidence and prevalence of TTM. It is estimated that as many 8 million Americans may suffer from TTM during their lifetime, with the lifetime prevalence rate for TMM estimated at 0.6-3.4% (Khouzam, Battista, & Byers, 2002). One large study by Christenson, Pyle, and Mitchell (1991) of 2,579 college freshmen is widely cited in literature as determining a prevalence of

pathological hair pulling behavior of the population, as 1.5% in males and 3.4% in females, with 0.6% of both sexes meeting the criteria for a diagnosis of TTM. Another study found that 40% of people suffering with TTM had never been diagnosed and that 58% had never been treated (Papadopoulos, et al., 2003).

TTM typically begins in late childhood or early adolescence, and may continue throughout life if left untreated (Kress, Kelly, & McCormick, 2004). People with TTM often believe that no one else experiences the disorder, and as a result, feel socially isolated and may avoid social activities. Children and adolescents often pull hair out covertly, and can go to great lengths to conceal their hair pulling episodes and resulting alopecia or bald areas of skin (Tolin et al., 2008). Many children and adolescents engage in “unfocused” hair pulling behaviors outside of awareness. The result of the covert nature of the hair pulling episodes and the lack of objective awareness of the episodes results in an underreporting of TTM prevalence by many parents of children with TTM and children with TTM.

TTM can be very time-consuming for students who live with the disorder (Adams & Jones, 1998). People with TTM can spend hours each day planning and ruminating about pulling out hair. Hair-pulling behavior tends to occur during sedentary or contemplative states, and can impact the activities of reading and completing homework when children and adolescents with TTM attempt their work. Although there is conflicting data as to the relationship of age and onset of TTM, Christenson, Mackenzie, and Mitchell (1991) reported data on 60 TTM patients and determined the mean age of onset to be 13 years old (Bordnick, 1997). As a result, the impact of TTM on social

activities and academic grades can be noted as a change and ongoing concern primarily during the middle school, secondary school, and early college years.

Author's Beliefs and Experiences

One specific validity threat to the research processes identified by Maxwell (1996), termed “researcher bias,” relates to the possibility of the researcher selecting data that fits preconceptions held prior to research, or data that “stands out” to the researcher (p. 90). Maxwell argues that explaining bias is important for the audience to determine the level of integrity associated with the final conclusions that are presented. Merriam (1988) recommended that researchers clarify their biases from the onset of their studies by commenting on any experiences, beliefs, and orientations that have likely shaped their interpretations of and approaches to their research topics. As the author of this review of the literature, I agree with Maxwell and Merriam, and wish to provide the reader with background information related to my personal experiences, beliefs, and orientations. I am a white, American-born man who has twenty years of experience working as a nurse in group home, nursing home, and hospital settings in five states of the Union. In later life, I turned to the public education sector, working as an alternative high school teacher, followed by four years as a special education paraprofessional. I currently work as a special education high school teacher while continuing my graduate studies.

Having studied to obtain a graduate degree in Community Psychology, I have been inspired by understandings derived by the social paradigm theories that consider ecological parameters. Specifically, I have been inspired by the work of Roger Barker, who in 1968, first described “behavior settings” as parts of a community that are defined by time and space boundaries where patterns of behavior are self-generated and not

artificially arranged for study (Barker, 1968; Rappaport, 1975). I have also been inspired by the insight of Edward Seidman (1990) and the continuation of Barker's lead through his presentation and work describing the social regularities theory. Understanding the community settings of public schools in terms of the theories provided by Barker and Seidman provides me with personal insight as to the pressures from the setting that are imposed upon individual students, and how the deviation from "normal" conduct demonstrated by the students whom find themselves in my educational charge are, at times, related to the manner in which communities act to force members to conform or be expelled from association with the community.

My interest in TTM started with my professional association with one sixteen-year female student in an alternative high school setting, to whom I will refer to as "Kari." Kari was an intelligent, thoughtful student, who took pride in her schoolwork, as well as her understanding of the information provided in the classroom. By all accounts from her male peers, Kari was considered physically to be a striking beauty, despite her tendency toward "Gothic" style clothing and makeup. Kari appeared to have a supporting family and a modest middle-class home setting. Academically, Kari had struggled to pass her middle school and freshman high school classes. She was often absent from class, many times without excuse, and by the time she became my student, she had already been expelled and suspended to the extent that she was considered to be at her last chance to attend public school for graduation.

As a new teacher, relying mostly upon my medical observational skills honed by decades of work as a nurse, Kari's situation was puzzling. She alternated from being confident and productive in class, to being shy and withdrawn, with a propensity for

leaving the room or school at a moment's notice for no knowable reason. Staff members and students, as well as one parent, considered Kari's actions to be defiant in nature, as if she knew the rules of conduct, but were choosing to be obstinate, being unconcerned by the deserved repercussions. Kari tended to confirm this belief about her motivations through her unusual dress and reluctance to explain herself. Through a series of observations and one private confession, I came to understand that Kari suffered from TTM and that the condition impacted every aspect of her life and education. She obsessed over pulling out her long hair. She described how she would fight the urge for hours, being unable to think about or concentrate on any other subjects. At times, the urge would win out, and she would flee from people to pull out hair, one strand at a time. She was in constant fear of being identified as insane by others, and went to great lengths to hide her hair pulling sessions and the resulting bald patches. Although Kari's parents were aware of her condition, and she did receive some form of psychological treatment for her problem, Kari's TTM had impacted her educational process to the extent that she was in grave danger of never achieving the educational milestones considered ordinary to other students.

Years later, in another school setting, I was astounded to have contact with another young female student who was suffering with TTM and struggling with many of the same problems fought by Kari. Through personal study, I came to understand that TTM is a prevalent and under-diagnosed condition that especially targets young women. It is estimated that as many 8 million Americans may suffer from TTM during their lifetime, with the lifetime prevalence rate for TTM estimated at 0.6-3.4% (Khouzam, Battista, & Byers, 2002). Even though this condition may affect as many as 1 to 3 out of 100

students on average, impacting the ability of these students to succeed educationally in many manners, in common practice I have found very few educators who know of TTM. As a high school special education teacher, I have a specific interest in determining the relationship of TTM and the population served within the special education sector in the United States.

The Purpose of this Review of the Literature

This review of the literature had multiple purposes. One purpose was to identify journal articles that examined issues related to the impact TTM has on the education of the primary and secondary student who experience it. The second purpose was to classify these articles according to publication type, by research design, and by emergent theme. The third purpose was to identify strategies and techniques that can be used in the school setting to lessen the negative impacts TTM has on the educational pursuits of students. My fourth purpose was to improve my own practice as a public schools special education teacher by continuing my edification and establishing a resource of referenced options that could be utilized if needed during my tenure.

Methods

Selection Criteria

The journal articles included in this review of the literature met the following selection criteria:

1. The articles addressed issues related to TTM in educational, psychological, or behavioral contexts;
2. The articles were published in peer-reviewed journals typically read by educators;

3. The articles were authored by educators and/or psychiatric or psychological practitioners (or by research consultants with strong backgrounds in education, psychiatry, or psychology) and were published in scholarly journals that examined issues related to education or TTM;

4. The articles were published after October 1993; and

5. The articles were written in English.

Search Procedures

I searched four databases that index literature related to TTM and/or education and located 20 journal articles that met the selection criteria. These four databases included: (a) ERIC (Ebscohost); (b) Professional Development Collection (Ebscohost); (c) Education Journals (ProQuest); and (d) Education Abstracts (OCLC FirstSearch). The discrepancy between the actual number of items included in this review (20) and the combined number of items located in the various searches (47) is due to redundant finds.

ERIC (Ebscohost). A Boolean search using the subject terms (“Trichotillomania” OR “hair pulling”) limited to “journal articles” with dates limited to between October 1993 and October 2008 returned 14 results. Ten of these results met my selection criteria and were included in this review of the literature (Boudjouk, Woods, Miltenberger, & Long, 2000; Flessner, Busch, Heidman, & Woods, 2008; Flessner, et al., 2007; Kell, & Kress, 2006; Kress, Kelly, & McCormick, 2004; Long, Miltenberger, & Rapp, 1999; Norberg, Wetterneck, Woods, & Conelea, 2007; Mouton-Odum, Keuthen, Wagener, & Stanley, 2006; Paivio & McCulloch, 2004; Tolin, et al., 2008).

Professional Development Collection (Ebscohost). Using the dictionary setting of search terms in the Professional Development Collection, I checked off

“trichotillomania,” set the parameters as peer-reviewed journals between October 1993 and October 2008 and received nine article titles. The first four, I found previously in the ERIC search and will include in this review of the literature (Flessner, et al., 2007; Flessner, Busch, Heidman, & Woods, 2008; Kress, Kelly, & McCormick, 2004; & Norberg, Wetterneck, Woods, & Conelea, 2007). Four remaining articles met my selection criteria and will be included in this review of literature (Bordnick, 1997; Byrd, Richards, Hove, & Friman, 2002; Elliott, & Fuqua, 2002; Gershuny, et al., 2006). I then conducted a peer-reviewed journal search for titles between October 1993 and October 2008 utilizing the definition search option subject term (DE “COMPULSIVE hair pulling”) suggested by the database for the term “trichotillomania.” This search provided eight articles, all duplicated from the previous search except for one title, which was also selected for the review of the literature (Borrero, Vollmer, Wright, Lerman, & Kelley, 2002).

Education Journals (ProQuest). A Boolean search using the subject terms (“Trichotillomania” OR “hair pulling”) in the citation or abstract of articles limited to “scholarly articles” with dates limited to between October 1993 and October 2008 returned 18 results. Of the 18 results, seven were identified and included during earlier database searches (Byrd, Richards, Hove, & Friman, 2002; Elliott, & Fuqua, 2002; Flessner, et al., 2007; Flessner, Busch, Heidman, & Woods, 2008; Kress, Kelly, & McCormick, 2004; Norberg, Wetterneck, Woods, & Conelea, 2007; Paivio, & McCulloch, 2004). Of the remaining 11 results, five met the criteria to be included in this review of the literature (Adams & Jones, 1998; Dai, 2008; Christen-Zaech & Chamlin,

2007; Ramadan, Pandya, & Bhaduri, 2003; Rapp, Miltenberger, Long, Elliot, & Lumley, 1998).

Education Abstracts (OCLC FirstSearch). A Boolean search using the keyword terms (“Trichotillomania” OR “hair pulling”) with dates limited to between October 1993 and October 2008 returned six results. Of the six results, two were identified and included during earlier database searches (Kress, Kelly, & McCormick, 2004; Paivio & McCulloch, 2004) and two were identified and excluded. Of the remaining two articles, neither met the criteria for this overview of the literature and I did not include them for consideration.

Coding Procedures

I developed a coding form to categorize the information presented in each of the 20 articles. The coding form was based upon: (a) publication type; (b) research design; (c) participants; (d) data sources; and (e) findings.

Publication type. I evaluated and classified each article according to publication type (e.g., empirical study, descriptive article, position paper, guide, annotated bibliography). Empirical studies are articles that explain studies that are based on experience, experiment or observation, and where the methods used to analyze the data is presented. A descriptive article is an article in which a subject or experience is described, but lacks the methods in which the data was gathered or analyzed. A position paper is an article in which a position, conclusion, or recommendation is expressed and in which arguments or reasons for supporting the position provided are usually presented. Guides are articles that recommend specific strategies, programs, and/or actions for the reader to consider related to the subject. Annotated bibliographies are articles that list books and/or

articles related to a subject, and include a citation and a description or critique of each publication.

Research design. I evaluated and classified each study by research design (i.e., quantitative research, qualitative research, mixed methods research). Quantitative research involves the process of collecting, analyzing, and interpreting numerical data, and presenting the results to the reader in a manner that refers to numerical information. Qualitative research involves processes of collecting, analyzing, and interpreting data through written and spoken language and presented for the reader without utilizing numerical information. Mixed methods research employs aspects of both quantitative methods and qualitative procedures (Creswell, 2002).

Participants, data sources, and findings. I identified the participants in each of the empirical studies (e.g., female undergraduate students, people with TTM seeking treatment, participants in an Internet-based survey). I also identified the data sources in each study (e.g., diagnostic interviews, surveys, pre-test and post-test measures, self-reports). Finally, I summarized the findings of each study.

Data Analysis / Emergent Themes

The Stevick-Collaizi-Keen method is a systematic procedure used by qualitative researchers to distill necessary and fundamental concepts, issues, and themes from text for analysis. I used a modified version of the Stevick-Collaizi-Keen method described by Creswell (2007) and as utilized by Duke (2007) to analyze the 20 articles included in this review of this literature. I first identified “significant statements” within each article. For the purposes of this study, I defined significant statements as any statement that describes educational issues related to students with TTM. I then developed a list of non-repetitive,

non-overlapping (verbatim) “significant statements” with (non-verbatim) “formulated meanings.” These “formulated meanings” represented my interpretation of each “significant statement.” Finally, I grouped the “formulated meanings” from all 20 articles into collective “theme clusters” (or “emergent themes”). These “emergent themes” represent the “essence” (or content) of the entire body of literature (Creswell, 2007).

Results

Publication Type

Fourteen of the 20 articles (70 %) included in this review of the literature were empirical studies. Five of the articles (25 %) were descriptive articles. One article (5 %) was a guide. No position papers or annotated bibliographies met the criteria to be included in the review of the literature. The publication type of each article is delineated in Table 1.

Table 1

Author(s) & Year of Publication	Publication Type
Adams & Jones, 1998	Descriptive Article
Bordnick, 1997	Guide
Borrero, Vollmer, Wright, Lerman, & Kelley, 2002	Empirical Study
Boudjouk, Woods, Miltenberger, & Long, 2000	Empirical Study
Byrd, Richards, Hove, & Friman, 2002	Empirical Study
Christen-Zaech & Chamlin, 2007	Descriptive Article
Dai, 2008	Empirical Study
Elliott & Fuqua, 2002	Empirical Study
Flessner, Busch, Heidman, & Woods, 2008	Empirical Study
Flessner, Woods, Franklin, Keuthen, Piacentini, Cashin, et al., 2007	Empirical Study
Gershuny, Keuthen, Gentes, Russo, Emmott, Jameson, et al., 2006	Empirical Study
Kell & Kress, 2006	Descriptive Article
Kress, Kelly, & McCormick, 2004	Descriptive Article
Long, Miltenberger, & Rapp, 1999	Empirical Study
Mouton-Odum, Keuthen, Wagener, & Stanley, 2006	Empirical Study
Norberg, Wetterneck, Woods, & Conelea, 2007	Empirical Study
Paivio & McCulloch, 2004	Empirical Study
Ramadan, Pandya, & Bhaduri, 2003	Descriptive Article
Rapp, Miltenberger, Long, Elliot, & Lumley, 1998	Empirical Study
Tolin, Diefenbach, Flessner, Franklin, Keuthen, Moore, et al., 2008	Empirical Study

Research Design, Participants, Data Sources, and Findings of the Studies

Fourteen empirical studies met the selection criteria for this review of the literature. The research design, participants, data sources, and findings of these studies are provided in Table 2.

Table 2

Author(s)	Research Design	Participants	Data Sources	Findings
Borrero, Vollmer, Wright, Lerman, & Kelley, 2002	Quantitative	8-year-old boy and a 35-year-old man, both with TTM	Pre-test and post-test measures	The use of protective equipment such as gauze and baseball cap, or a helmet, reduced self-injurious behavior for 2 subjects with TTM.
Boudjouk, Woods, Miltenberger, & Long, 2000	Quantitative	51 adolescents of a Midwestern junior high school	Surveys post exposure to stimulus	Adolescents who exhibited TTM or motor tics were perceived by their peers as being less socially acceptable than adolescents who did not exhibit such behaviors.
Byrd, Richards, Hove, & Friman, 2002	Quantitative	2-year-old with TTM	Pre-test and post-test measures	Response Prevention Measures of placing socks on hands and time-out periods eliminated early onset TTM in one subject.
Dai, 2008	Quantitative	16-year-old girl with TTM	Pre-test and post-test measures	Cognitive-Behavioral Therapy used in conjunction with topical numbing cream reduced TTM episodes for one subject with TTM.
Elliott & Fuqua, 2002	Quantitative	233 undergraduate psychology students	Surveys post exposure to stimulus	Hypnosis and habit reversal methods were rated significantly more acceptable as treatments for TTM than either medication or punishment.
Flessner, Busch, Heidman, & Woods, 2008	Quantitative	5 females with TTM and Chronic Skin Picking	Pre-test and post-test measures	Acceptance-Enhanced Behavior Therapy was effective in reducing TTM and skin picking behaviors for 5 subjects.
Flessner, Woods, Franklin, Keuthen, Piacentini,	Quantitative	164 parent-child dyads, with the children meeting the	Surveys	Provides evidence that two styles of TTM exist with children: focused and automatics styles.

Cashin, et al., 2007		criteria for TTM		
Gershuny, Keuthen, Gentes, Russo, Emmott, Jameson, et al., 2006	Mixed Methods	42 people seeking treatment for TTM at Massachusetts General Hospital	Diagnostic interviews and surveys	Approximately three-quarters of the people with TTM experienced at least one type of traumatic event or situation in their past. Nineteen-percent met the criteria for Posttraumatic Stress Disorder.
Long, Miltenberger, & Rapp, 1999	Quantitative	6-year-old girl with TTM and thumb sucking behavior	Pre-test and post-test measures	Using Simplified Habit Reversal Treatment utilizing training and rewards of M&Ms reduced behaviors slightly. Modifying the treatment to include losing M&Ms (response costs) resulted in nearly stopping TTM and thumb sucking behaviors
Mouton-Odum, Keuthen, Wagener, & Stanley, 2006	Mixed Methods	265 participants using an Internet-based self-help program	Surveys and chronicled self-reports	Outcomes from the users of the Internet site suggested a significant reduction in overall severity and frequency of hair-pulling.
Norberg, Wetterneck, Woods, & Conelea, 2007	Quantitative	404 participants in a Internet-based survey self-reporting TTM behaviors	Surveys	Participants reporting TTM behaviors reported higher levels of shame, higher levels of dysfunctional beliefs about their appearance, and higher levels of fear of negative evaluations than previously reported college student samples.
Paivio & McCulloch, 2004	Quantitative	100 female undergraduate students of the University of Winsor, Canada	Surveys	The study suggests a link between childhood trauma and self-injurious behaviors including TTM. Higher levels of alexithymia (difficulty in

				communicating feelings) and the severity of maltreatment both predicted higher levels of self-injurious behavior.
Rapp, Miltenberger, Long, Elliot, & Lumley, 1998	Quantitative	3 12-year-old girls with TTM	Pre-test and post-test measures	Substantial reduction in TTM behavior was achieved using Simplified Habit Reversal, which consisted of awareness training, competing response training, and social support.
Tolin, Diefenbach, Flessner, Franklin, Keuthen, Moore, et al., 2008	Mixed Methods	113 children self-reporting TTM & 132 parents reporting via the Internet plus 41 child-parent dyads in clinics	Surveys and interviews	The Trichotillomania Scale for Children (TSC) was developed and may prove to be an important measure of self-reporting children and parents of children with regards to TTM.

Research design. Eleven of the 14 studies (79%) included in this review of the literature employed quantitative methods to collect data. Of these eleven studies, six studies used pre-test and post-test measure to determine the effect of specific treatments, three studies review the results from surveys, and two studies studied changes in participants after being exposed to stimulus related to TTM. Three of the 14 studies (21%) employed mixed methods to create data for analysis. Of these three studies, one study utilized self reports and information gained during psychological assessments, one study utilized surveys combined with self reporting afterwards via Internet WebPages, and one study utilized a combination of surveys and clinical interviews.

Participants and data sources. Six of the 14 studies (43%) provided data derived from direct observation of people with TTM, describing the effectiveness of various treatments and interventions for TTM. Five of the studies (36%) examined survey results, chronicled self-reports, and interviews, all data being derived from people with TTM or from parents or family members of people with TTM. Two of the 14 studies used surveys of students without TTM to examine the perceptions students hold about people with TTM and the treatment utilized. One study (7%) examined results of college students to establish the prevalence rate of self-injurious behaviors including TTM.

Findings of the studies. The findings of fourteen studies included in this review of the literature can be summarized as follows:

1. A variety of treatments have been found to be effective in reducing self injurious behaviors associated with TTM. The treatments include the use of protective equipment, response prevention measures, Cognitive-Behavior Therapy with the use of

topical numbing cream, Acceptance-Enhanced Behavior Therapy, and Simplified Habit Reversal Treatment.

2. People with TTM often have co-morbid psychological conditions or suffer higher levels of fear and anxiety than peers.

3. TTM is currently being defined and understood as a conditions as evidenced by the creation of the Trichotillomania Scale for Children (TSC) and the understanding that there exists differing types of TTM including focused and automatics styles.

4. Students without TTM perceive peers showing symptom of TTM as less socially acceptable.

5. Students without TTM consider hypnosis and habit reversal methods more acceptable as treatments for TTM than either medication or punishment.

Emergent Themes

I used a modified version of the Stevick-Collaizi-Keen method described by Creswell (2007) and as utilized by Duke (2007) to analyze the 20 articles included in this review of this literature to develop “theme clusters” that represent the “essence” (or content) of this entire collection. Four themes emerged from my analysis. These “emergent themes” (or “theme clusters”) include: (a) trichotillomania demographics; (b) social behaviors associated with trichotillomania; (c) trichotillomania and the school experience; and (d) trichotillomania treatments. These four “theme clusters” and their associated “formulated meanings” are delineated in Table 3.

Table 3

Theme Clusters	Formulated Meanings
Trichotillomania Demographics	<ul style="list-style-type: none"> • There is no consensus as to the prevalence of clinical TTM. Estimates range from 0.6% to 4% of the population has TTM. Lifetime prevalence rates for TTM are 3.4% for women and 1.5% for men. Non-clinical hair pulling that does not result in noticeable hair loss may affect 10% to 22% of the population, most being female. • Estimates of 2.5 million to 8 million people in the United States have TTM. • Of children and adolescents with TTM, 70% are female; of adults with TTM, 90% are female. • TTM usually begins in childhood or adolescence, with the mean onset age being 13. • Early onset of TTM (i.e., between 18 months and 4 years in age) is not uncommon. • Approximately 60% of people with TTM never seek treatment. • TTM is a separate psychiatric diagnosis but is often comorbid with other psychiatric conditions. In children and adolescents, approximately one-third to two-thirds of TTM patients meet the criteria for at least one comorbid Axis I disorder. Of the people with TTM, approximately 76% of one study reported at least one traumatic event (i.e., accidents, witnessing violence, or sexual violations). In that same study, 19% met the criteria for post-traumatic stress disorder
Social Behaviors Associated with Trichotillomania	<ul style="list-style-type: none"> • There are two types of TTM resulting in different behaviors. The automatic type occurs out of the person's focus. The focused type is compulsive in nature and used to regulate negative emotions. • TTM can be very time-consuming, with people spending from minutes to hours each day pulling out hair or ruminating about pulling. Large amounts of time can be spent hiding the resulting hair loss from others. • Most of the time, hair-pulling behaviors are performed during sedentary or contemplative states. Examples of activities when hair-pulling occurs include reading, doing homework, writing, watching television, and when in bed before sleeping. • Individuals with TTM tend to believe that they are the only person with the condition, resulting in feelings of being alone, isolated, and misunderstood. People with

	<p>TTM may spend years dealing independently with the consequences of TTM.</p> <ul style="list-style-type: none"> • TTM can result in low self-esteem, depression, and anxiety. TTM also results in a need to avoid social situation, leading to isolationism. • People displaying symptoms of TTM are rated as less acceptable by peers than other people. TTM results in social rejection or alienation for individuals with the disorder. Such alienation or rejection may lead to the development or exacerbation of other psychiatric conditions. • Some forms of TTM result in abdominal pain, weight loss, and anorexia caused from eating hair pulled out hair. • Some people with TTM spend large amounts of money to hide the resulting hair loss, purchasing items such as hats or hair extensions.
<p>Trichotillomania and the School Experience</p>	<ul style="list-style-type: none"> • Youths displaying TTM symptoms are rated significantly lower in social acceptability than youths who do not exhibit TTM. The resulting social rejection or alienation for individuals with the disorder can push youths to avoid public areas such as school. TTM interferes with grooming in some youths, leading to further rejection. Skipping school is one result of TTM for students who try to hide results of the condition and avoid interactions. • Avoidance of school and social activities can result in poor academic performance, lower grades, and repeating of school grades. • Most of the time, hair-pulling behaviors are performed during sedentary or contemplative states such as reading, writing, or doing homework. • Increased academic pressures, such as writing important papers, can exacerbate hair pulling for students with TTM.
<p>Trichotillomania Treatments</p>	<ul style="list-style-type: none"> • There is no consensus as to the preferred or most effective treatment for TTM. The list of treatments used to treat TTM includes pharmacotherapy, psychodynamic therapy, cognitive-behavioral therapy, response prevention therapy, behavior modification techniques, psychotherapy, Acceptance-Enhanced Behavior Therapy, habit-reversal training, simplified habit reversal treatment, cognitive therapy, Internet-based self help treatment strategies, self-monitoring

	<p>techniques, Response Prevention combined with a time-out periods, use of protective equipment, muscle relaxation techniques, and hypnosis.</p> <ul style="list-style-type: none">• The use of pharmacotherapy in the treatment of TTM has increased in the past several years, although there is no consensus as to which agents are the most effective in treating TTM. Medications used to treat TTM include serotonin reuptake inhibitors (SRIs), antidepressants, paroxetine, fluoxetine, lithium, buspirone, olanzapine, and clomipramine.• One common method to treat TTM, or to protect individuals from detrimental hair loss associated with TTM, is to use protective equipment. Examples of protective equipment include the placement of gauze and baseball cap or helmet, socks placed on hands, gloves, hand splints, and weights on wrists.• Some people with TTM use behavioral techniques to effectively interrupt or replace hair pulling with alternative behaviors. Alternative behaviors include actions such as making a fist, working with clay, putting hair in a ponytail, or other activities that require the use of hands. Brushing hair is effective at times as it stimulates the scalp and provides a sensation of pleasure.• Topical numbing creams such as Lanacane or topical steroid lotions are prescribed for people with TTM.• Successful management of TTM requires a strong relationship among caregivers, parents, and people with TTM.• People without TTM consider hypnosis and habit reversal treatments as being the most acceptable. People without TTM consider medication and punishment as being the least acceptable treatments.
--	--

Discussion

In this section I summarize the major themes that emerged from my analysis of the 20 articles included in this review of the literature. I connect the “emergent themes” to my role as a special education teacher and reflect upon what implications this knowledge will have on my future practice.

Summary of Theme 1: Trichotillomania Demographics

TTM is not an uncommon condition. It affects female children and adolescents more than other people. Although TTM is a psychiatric diagnosis delineated in the DSM-IV-TR, true prevalence rates are difficult to determine. TTM is often a hidden condition, with sufferers going to great lengths to conceal the effects. The condition is also comorbid with other diagnosis that may skew public awareness and the account of TTM cases among students. Estimates of people who have TTM range from 0.6% to 4% of the population. In the United States 2.5 million to 8 million people have diagnosable TTM. Six out of ten people with TTM never seek treatment. Non-clinical hair pulling that does not result in noticeable hair loss may affect 30 to 60 million people in the United States, most being female. Three out of four children or adolescents with TTM are girls, and nine out of ten adults with TTM are women. Most people with TTM develop the condition at an early age, with the average onset age being 13. Children younger than 4 with TTM is not extraordinary.

As a public special education teacher, making personal or incidental contact with hundreds of students, it is statistically expected that I will meet students with TTM each year. With TTM being comorbid with other conditions that affect students identified and assisted by the special education department of public schools, TTM is a condition that

will likely be presented to a special education teacher at some point in his or her career. Understanding that TTM is widespread in the population and that it is the nature of students with TTM is to hide the condition and results of the condition from others, I must include TTM in the field of conditions I should seek to identify, and once identified, help students seek assistance for treatment for the condition if warranted. The statistical compilation created by this review of the literature provides that as a generalization, students that I will meet with TTM will likely be young girls or adolescent girls, may suffer with the condition secretly for years without treatment, and may have other conditions that supplant the observation that a need for treatment for TTM is necessary.

Summary of Theme 2: Social Behaviors Associated with Trichotillomania

People with TTM not only experience the loss of hair; most experience a variety of negative emotions and other consequences that impact all aspects of their lives. People with TTM can spend a large amount of their time pulling hair or thinking about it, making them less productive in other pursuits that require time. They can also spend time and money seeking methods to hide their condition and resulting hair loss. Others see people with TTM in a less favorable light than their peers, a fact that may add to the adjunct emotions people with TTM experience. People with TTM report feelings of low self-esteem, anxiety, and depression. They also tend to avoid social situations resulting in isolationism. People with TTM may believe that they are the only person with the condition and can spend years in social isolation not seeking help. Some forms of TTM can impact the health of the individual with weight loss, anorexia, and abdominal pain resulting from the eating of hair pulled out. One of the two types of TTM, the unfocused type, occurs when the person is sedentary or contemplative. This form of TTM impacts

activities such as reading, watching television, or working on school homework. The second type of TTM, the focused type, occurs in a compulsive manner. This type of TTM helps the person regulate other, more hurtful or negative emotions.

As a special education teacher, I must seek to mitigate the impact of the secondary effects associated with TTM that can dominate all aspects of the lives of students who live with the condition. I must understand that a student identified with TTM will be in danger of missing school time, in danger of not being able to accomplish coursework assignments, and will be in danger of being ostracized by peers. Students with TTM will obsess on spending time pulling hair or on spending time and money to hide the resulting hair loss. School accommodations would be appropriate to ensure that the effects of TTM do not impact the overall opportunities for advancement as the condition is alleviated through treatment. Increased communication with my students with TTM may lead to an understanding of and solutions for the difficulties experienced by the students that are related to the need to pull hair to relieve stress. By understanding the areas of school experience that are impacted by TTM, it may be possible to discern if the a hair-pulling condition is present in the lives of my students who exhibit the behaviors of social isolation associated with TTM.

Summary of Theme 3: Trichotillomania and the School Experience

Peers rate students who display symptoms of TTM as less socially acceptable than those who not. TTM also interferes with grooming in some students, leading to further distancing from peer groups. As a result of these negative distinctions, students with TTM can feel rejected and alienated in public settings such as school. Alienation can result in behaviors such as skipping school, avoiding school functions, and avoiding

social activities. Results from the complications of TTM can lead to poor academic performance, low grades, and the repeating of grades. Other school considerations related to TTM include the tendency of students with TTM to pull their hair during periods of sedentary activity or contemplation such as reading, writing, or completing homework. An increase in academic pressures such as the need to write important papers can exacerbate the hair pulling activity by students with TTM

My students who have been identified as having TTM will need specific attention to ensure that the students will attend enough school classes and activities to graduate grade levels. Behavior plans may need to be implemented that target absences and skipping in agreement with parents and student. Students with TTM may need shelter in the school where he or she may escape to when pressures or alienation builds. I must also seek to build cooperation with general education teachers to help eliminate academic pressure that would exacerbate hair pulling for my students with TTM. I must also establish a report with my students with TTM to ensure that they will seek my assistance when the need for minimizing the effect of the resulting hair loss is required in order that the student attends classes without humiliation. TTM is also comorbid with other conditions associated with special education, but being veiled, not noted as the underlying cause for behaviors that interfere with academic success. By knowing the academic and social difficulties associated with TTM, coupled with the knowledge of the prevalence rates of the condition, I may be more apt to recognize the presence of TTM in students who have not been officially diagnosed, and direct resources accordingly.

Summary of Theme 4: Trichotillomania Treatments

There exists no consensus in the literature as to the most preferred or most effective method for treatment for TTM. The list of treatments discovered in this review of the literature includes pharmacotherapy, psychodynamic therapy, cognitive-behavioral therapy, response prevention therapy, behavior modification techniques, psychotherapy, Acceptance-Enhanced Behavior Therapy, habit-reversal training, simplified habit reversal treatment, cognitive therapy, Internet-based self help treatment strategies, self-monitoring techniques, Response Prevention combined with a time-out periods, use of protective equipment, muscle relaxation techniques, and hypnosis. The use of medications to treat TTM has increased, but no consensus exists as to which compound is most effective. Medications used to treat TTM include serotonin reuptake inhibitors (SRIs), antidepressants, paroxetine, fluoxetine, lithium, buspirone, olanzapine, and clomipramine. Some treatments for TTM include the use of protective equipment such as hats, gloves, and wraps to prevent hair-pulling activities. Other treatments include practicing the substitution of alternate behaviors for the activity of pulling hair. Numbing creams placed on the skin are used in conjunction with some treatments. For treatments to be effective, a strong relationship is required between caregivers and people with TTM. People that do not have TTM rate the treatments of hypnosis and habit reversal as most acceptable, while considering medication and punishment to be least acceptable.

As a special education teacher, I am often considered to be a member of a team seeking to treat or monitor the effects that an employed treatment has on a student in my care. Psychological conditions often have widely accepted specific treatment or behavior plans that require routine monitoring and reporting during the school day. This review of

the literature indicates that a wide variety of treatment plans may be promoted to help students with TTM. In my practice, I may be called upon to perform a unique set of interventions or chores with one student with TTM, and a different set of actions with another student with TTM. Some treatments for TTM may require extensive one-to-one interventions, such as placing gloves or wraps on students, and insuring the application is kept in place. Other treatments may require that I monitor and intervene during a student's school day to replace hair-pulling activities with substitute activities, such as working with clay. Many of the medications that may be prescribed to treat TTM have side effects. It would be job to help monitor students with TTM for medication side effects or effectiveness, and educate the general education staff about the possible effects of medications utilized. To help ensure the possibility for a cure for a student with TTM, or a reduction in hair-pulling incidents by students with TTM, I must consider myself to be an important part of a team that must work in concert with caregivers and parents to work on behalf of the student.

Conclusion

Trichotillomania is a debilitating, hidden condition that mostly affects school-age girls. TTM is prevalent throughout society but may be under-recognized by educators. As many as 8 million people in the United States may live with TTM, many having hidden the condition for years without seeking treatment. Special education teachers may be more likely to work with students with TTM, as the condition tends to be comorbid with other conditions that promote special education assistance in the school. Students with TTM are at risk for failing grades and social isolation, and may go to great lengths to hide the resulting hair loss or time lost to ruminating about pulling hair or the act of pulling

out hair. Once identified, special education teachers may be called upon to assist with providing interventions or treatments for TTM, many of which require increased supervision, placement of equipment, or monitoring of behaviors or effects from medication dispensation. Although TTM is an identified and delineated condition recognized by the American Psychological Association, there exists no consensus among medical practitioners as to how to treat TTM. Special education teachers may encounter differing approaches to treatment of TTM from medical or psychiatric agencies.

My belief that TTM is a hidden and emotionally crippling condition that is more widespread among school-age girls than is generally understood has been furthered by this review of the literature. Having witnessed first-hand the effects that TTM can have on the ability to access school opportunities, it is my concern as a teacher that too many other students may be suffering in silence, thinking that they are unique in being unable to control their self-injurious behavior. It is my hope that all educators become aware that TTM is a real and prevalent condition, and seek to alleviate the pain the condition creates in the lives of their students who suffer from it.

References

- Adams, K., & Jones, J. V. (1998). Trichotillomania: Its classification and treatment. *TCA Journal*, 26(1), 10-28.
- American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th ed., text revision). Washington, DC: Author.
- Barker, R. G. (1968). *Ecological psychology: Concepts and methods for studying the environment of human behavior*. Stanford, CA: Stanford University Press.
- Bordnick, P. S. (1997). Trichotillomania: A social worker's guide to practice. *Research on Social Work Practice*, 7(2), 216-228.
- Borrero, J. C., Vollmer, T. R., Wright, C. S., Lerman, D. C., & Kelley, M. E. (2002). Further evaluation of the role of protective equipment in the functional analysis of self-injurious behavior. *Journal of Applied Behavior Analysis*, 35(1), 69-73.
- Boudjouk, P. J., Woods, D. W., Miltenberger, R. G. & Long, E. S. (2000). Negative peer evaluations in adolescents: Effects of tic disorders and trichotillomania. *Child and Family Behavior Therapy*, 22(1), 17-28.
- Byrd, M. R., Richards, D. F., Hove, G. & Friman, P. C. (2002). Treatment of early onset hair pulling as a simple habit. *Behavior Modification*, 26(3), 400-412.
- Christenson, G. A., Mackenzie, T. B., & Mitchell, J. E. (1991). Characteristics of 60 adult chronic hair pullers. *American Journal of Psychiatry*, 148(3), 365-370.
- Christenson, G. A., Pyle, R.L., & Mitchell, J. E. (1991). Estimated lifetime prevalence of trichotillomania in college students. *Journal of Clinical Psychiatry*, 52, 415-417.

- Christen-Zaech, S., & Chamlin, S. L. (2007). An 8-year-old girl with hair loss. *Pediatric Annals*, 36(5), 258-261.
- Creswell, J. W. (2002). *Research design: Qualitative, quantitative, and mixed method approaches* (2nd ed.). Thousand Oaks, CA: Sage.
- Creswell, J. (2007). *Qualitative inquiry and research design: Choosing among five approaches*. (2nd ed.). Thousand Oaks, CA: Sage.
- Dai, D. A. (2008). "I can't stop pulling my hair!" Using numbing cream as an adjunct treatment for trichotillomania. *Health and Social Work*, 33(2), 155-159.
- Duke, T. S. (2007). Hidden, invisible, marginalized, ignored: A critical review of the professional and empirical literature (or lack thereof) on gay and lesbian teachers in the United States. *Journal of Gay and Lesbian Issues in Education*, 4(4), 19-38.
- Elliott, A. J., & Fuqua, R. W. (2002). Acceptability of treatments for trichotillomania. *Behavior Modification*, 26(3), 378-400.
- Flessner, C. A., Busch, A. M., Heidman, P. W., & Woods, D. W. (2008). Acceptance-enhanced behavior therapy (AEBT) for trichotillomania and chronic skin picking: Exploring the effects of component sequencing. *Behavior Modification*, 32(5), 579-594.
- Flessner, C. A., Woods, D. W., Franklin, M. E., Keuthen, N. J., Piacentini, J., Cashin, S. E., et al. (2007). The Milwaukee inventory for styles of trichotillomania-child version (MIST-C): Initial development and psychometric properties. *Behavior Modification*, 31(6), 896-918.
- Gershuny, B. S., Keuthen, N. J., Gentes, E. L., Russo, A. R., Emmott, E. C., Jameson, M., et al. (2006). Current posttraumatic stress disorder and history of trauma in

- trichotillomania. *Journal of Clinical Psychology*, 62(12), 1521-1529.
- Kell, B. L., & Kress, V. E. (2006). Trichotillomania: Behavioral assessment and treatment interventions. *International Journal of Behavioral Consultation and Therapy*, 2(1), 65-72.
- Khouzam, H. R., Battista, M. A., & Byers, P. E. (2002). An overview of trichotillomania and its response to treatment with quetiapine. *Psychiatry*, 65(3), 261-270.
- Kress, V. E. W., Kelly, B. L., & McCormick, L. J. (2004). Trichotillomania: Assessment, diagnosis, and treatment. *Journal of Counseling and Development*, 82(2), 185-191.
- Long, E. S., Miltenberger, R. G., & Rapp, J. T. (1999). Simplified habit reversal plus adjunct contingencies in the treatment of thumb sucking and hair pulling in a young child. *Child and Family Behavior Therapy*, 21(4), 45-58.
- Maxwell, J. A. (1996). *Qualitative research design: An interactive approach*. Thousand Oaks, CA: Sage Publications.
- Merriam, S. B. (1988). *Case study research in education: A qualitative approach*. San Francisco, CA: Jossey-Bass.
- Mouton-Odum, S., Keuthen, N. J., Wagener, P. D., & Stanley, M. A. (2006). StopPulling.com: An interactive, self-help program for trichotillomania. *Cognitive and Behavioral Practice*, 13(3), 215-226.
- Norberg, M. M., Wetterneck, C. T., Woods, D. W., & Conelea, C. A. (2007). Experiential avoidance as a mediator of relationships between cognitions and hair-pulling severity. *Behavior Modification*, 31(4), 367-381.
- Özcan, Y., Öcan, H., & Ensari, H. (2003). Efficacy of hydroxyzine in the treatment of trichotillomania: An open-label study. *Bulletin of Clinical Psychopharmacology*,

13(1), 19-22.

Paivio, S. C., & McCulloch, C. R. (2004). Alexithymia as a mediator between childhood trauma and self-injurious behaviors. *Child Abuse & Neglect: The International Journal*, 28(3), 339-354.

Papadopoulos, A. J., Janniger, C. K., Chodynicky, M. P., & Schwartz, R. A. (2003). Trichotillomania. *International Journal of Dermatology*, 42, 330-334.

Ramadan, N., Pandya, N. A., & Bhaduri, B. (2003). Images in paediatrics: A Rapunzel with a difference. *Archives of Disease in Childhood*, 88(3), 264.

Rapp, J. T., Miltenberger, R. G., Long, E. S., Elliot, A. J., & Lumley, V. A. (1998). Simplified habit reversal treatment for chronic hair pulling in three adolescents: A clinical replication with direct observation. *Journal of Applied Behavior Analysis*, 31(2), 299-303.

Rappaport, J. (1975). *Community psychology: Values, research, and action*. New York: Holt, Rinehart, and Winston.

Seidman, E. (1990). Pursuing the meaning and utility of social regularities for community psychology. In P. Tolan, C. Keys, F. Chertok, & L. Jason (Eds.), *Researching community psychology: Issues of theory and methods* (pp. 91-100). Washington DC: American Psychological Association.

Tolin, D. F., Diefenbach, G. J., Flessner, C. A., Franklin, M. E., Keuthen, N. J., Moore, P., et al. (2008). The trichotillomania scale for children: Development and validation. *Child Psychiatry and Human Development*, 39(3), 331-349.