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StopPulling.com: An Interactive, Self-Help Program for Trichotillomania

Suzanne Mouton-Odum, *Private Practice, Houston*
Nancy J. Keuthen, *Massachusetts General Hospital* and *Harvard Medical School*
Paula D. Wagener and Melinda A. Stanley, *Baylor College of Medicine, Houston Center for Quality of Care and Utilization Studies,* and *Michael E. DeBakey Veterans Affairs Medical Center, Houston*

Despite the widespread nature and significant impact of trichotillomania (TTM), relatively few controlled studies have evaluated treatment options for people with this disorder. Pharmacological treatment and behavior therapy are the two most widely accepted approaches to treating TTM, but few mental health professionals with appropriate expertise are available to provide care. The cost of treatment also is prohibitive in some cases. A number of self-help books are available for people with TTM, but no empirical data have documented associated outcomes. This paper describes the development and two phases of program evaluation for an alternative, Internet-based self-help treatment strategy for repetitive hair pulling. StopPulling.com is an on-line, interactive self-help approach derived from evidence-based cognitive behavioral models of treatment for TTM. Following program development, an initial test phase elicited feedback from individuals with repetitive hair pulling and professionals with expertise in the treatment of TTM or Web site development. StopPulling.com was modified in accordance with feedback from this initial test phase, and a revised version was made available to the public in January 2003. Preliminary data from 265 users of the program during the first year of public availability suggested significant improvement in symptoms, with some evidence that duration of program use accounted for reductions in symptom severity. Response rates were comparable to long-term follow-up after more intense cognitive behavioral treatment. StopPulling.com may provide a potentially useful self-help alternative or adjunctive strategy for repetitive hair pulling.

Trichotillomania (TTM) is a relatively common disorder that has, until the past 10 years, received little attention in the psychological, psychiatric, and dermatology literatures. TTM is currently classified as an impulse-control disorder (American Psychiatric Association [APA], 1994), with the following definitional criteria: (a) recurrent pulling of one's own hair that results in noticeable hair loss; (b) feelings of tension prior to pulling or when attempting to resist pulling; (c) pleasure, gratification, or relief while engaging in the behavior; (d) no other psychiatric or medical condition that could account for the behavior; and (e) the behavior results in clinically significant distress or interference. Prevalence of TTM diagnosed according to these criteria ranges from 0.6% (Christenson, Pyle, & Mitchell, 1991) to 2.0% (McCarley, Spirrison, & Ceminsky, 2002). Much higher estimates have been reported for the prevalence of repetitive hair-pulling that does not meet full criteria for TTM. Thus, despite traditional, common beliefs that hair pulling is both unusual and uncommon, repetitive hair pulling may affect 10% to 22% of the population (Hansen, Tishelman, Hawkins, & Doepke, 1990; Rothbaum, Shaw, Morris, & Ninan, 1993; Stanley, Borden, Ball, & Wagner, 1994).

People who suffer with TTM experience a multitude of difficulties, including decreased self-esteem (Soriano et al., 1996), functional interference (Diefenbach, Tolin, Hannan, Crocetto & Worhunsky, 2005), avoidance of relationships and pleasurable activities (Stemberger, Thomas, Mansueto, & Carter, 2000), and medical complications (Bouwer & Stein, 1998; du Toit, van Kradenburg, Niehaus, & Stein, 2001). Like other body-focused repetitive behaviors (e.g., self-injurious skin picking), patients with repetitive hair-pulling also report significant shame and secrecy accompanying their behaviors (Stemberger et al., 2000). Oftentimes, people suffering with these disorders feel alone, isolated, and misunderstood. As a result, many sufferers never discuss their behaviors with others, nor do they seek treatment (Cohen et al., 1995), leading to the possibility of significant underrecognition and undertreatment of TTM in mental health and primary care clinics, as well as low levels of awareness in society at large.

Despite the widespread nature of TTM and the profound impact that the symptomatology has on sufferers, relatively few controlled studies have evaluated treatment options for people with TTM. A handful of controlled trials have

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examined the impact of pharmacological treatment for TTM, but the majority of these have demonstrated no positive effects of medication relative to placebo (Christenson, MacKenzie, Mitchell, & Callies, 1991; Ninan, Rothbaum, Marsteller, Knight, & Eccard, 2000; Streichenwein & Thornby, 1995; van Minnen, Hoogduin, Keijsers, Hellenbrand, & Hendriks, 2003). Swedo et al. (1989) demonstrated that clomipramine was superior to desipramine in reducing the symptoms of TTM, but the evidence overall for a positive impact of pharmacological treatment for TTM is weak at best.

Behavioral treatment for TTM, however, shows more promise. The earliest use of behavioral treatment for repetitive hair pulling was based on an approach called habit reversal training (HRT). HRT was developed in the 1970s by Azrin and Nunn (1973) and has been used since that time for the treatment of a variety of repetitive behaviors, including tic disorders, stuttering, and nail biting (Miltenberger, Fuqua, & Woods, 1998; Twohig, Woods, Marcks, & Teng, 2003). HRT applied to TTM involves teaching clients to recognize their urges to pull and perform alternate behaviors (i.e., competing responses). Over the years, HRT has been incorporated into broader behavioral treatment programs for TTM that involve a variety of additional interventions, including inconvenience review, cognitive restructuring, stimulus control, and relaxation training (Lerner, Franklin, Meadows, Hembree, & Foa, 1998; Rothbaum, 1992; Stanley & Mouton, 1996). Mansueto, Golomb, Thomas, and Stemberger (1999) synthesized these approaches to create a comprehensive behavioral model for understanding and treating TTM based on the use of functional analysis to conceptualize antecedents, behaviors, and consequences of pulling.

Uncontrolled trials have suggested the utility of behavioral approaches for TTM with adults (e.g., Rosenbaum & Ayllon, 1981; Rothbaum, 1992) and children (e.g., Tolin, Franklin, Diefenbach, & Gross, 2002), and recent controlled studies have begun to substantiate the utility of this approach. In an early controlled trial, Azrin, Nunn, and Frantz (1980) demonstrated that HRT was superior to an alternative behavioral approach. Ninan et al. (2000) also demonstrated that cognitive behavioral treatment was superior to both clomipramine and placebo in reducing hair pulling and associated impairment, and van Minnen et al. (2003) reported that behavior therapy was superior to fluoxetine and a wait-list period. Several other studies are currently under way (Diefenbach, Tolin, Maltby, Hannan, & Crocetto, 2003; Keuthen et al., 2003), but existing data suggest that behavioral treatment has significant potential for the treatment of TTM relative to both alternative psychosocial and pharmacological approaches.

Despite the widespread nature of this disorder, relatively few mental health professionals are educated about cognitive behavioral treatment for TTM, leaving sufferers frustrated and oftentimes misinformed. Further, when treatment is available, it is sometimes cost prohibitive. Alternative and/or adjunctive avenues for reaching the public to educate and provide assistance are needed. In this vein, several excellent self-help books for people with TTM are available (Golomb & Vavrichek, 2002; Keuthen, Stein, & Christenson, 2001; Penzel, 2003). All of these resources are based on cognitive behavioral therapy, but no empirical evaluations of outcomes following self-help treatment have been conducted. Nevertheless, these publications have been well received and widely sold, and they are of potential value both in the absence of available therapy and as an adjunct to ongoing treatment.

Another alternative or adjunct to in-person care involves the use of computer technology. Approaches that incorporate the use of computers can make assistance more accessible for patients who cannot engage in in-person care for logistic reasons, nonavailability, and/or cost. They also can serve as useful adjuncts to ongoing care to facilitate patient involvement and enhance response. Computers have been used as an adjunct in treatment for anxiety and depression (Marks et al., 2003), obsessive-compulsive disorder (Baer & Greist, 1997), panic disorder (Carlbring, Westling, Ljungstrand, Ekselius, & Andersson, 2003; Kenardy et al., 2003), generalized anxiety disorder (Newman, Kenardy, Herman, & Taylor, 1996), and posttraumatic stress disorder (Rothbaum, Hodges, Ready, Graap, & Alarcon, 2001). Computer-assisted programs to teach general cognitive behavioral skills also are available (e.g., Wright et al., 2002). Some of these approaches use computers as an adjunct to facilitate in-person treatment; others utilize more of a self-help format; and still others rely on use of the Internet to deliver care independent of in-person treatment. Outcome data suggest generally positive results in terms of both symptom reduction and client satisfaction.

A computer-assisted approach seems particularly advantageous for TTM given that access to appropriately trained professionals is often severely limited. In addition, sufferers often experience shame about their symptoms and are reluctant to seek treatment (Cohen et al., 1995; Stemberger et al., 2000). A computer-based strategy also minimizes cost and provides a more interactive, individualized self-help strategy than bibliotherapy. More immediate feedback and reinforcement are available with a computer-based approach, and there is the possibility of greater maintenance of improvements. However, no such strategy has been developed heretofore for trichotillomania. This paper describes the development and two phases of program evaluation for StopPulling.com, an on-line, interactive, self-help approach for TTM based on empirically supported cognitive behavioral treatment for this disorder. The ultimate goal of this work is to enhance