14

Cognitive-Behavioral Treatment of Impulse Control Disorders

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Introduction

The DSM-IV (APA, 1994) has retained a chapter on Impulse Control Disorders Not Elsewhere Classified. The five specific categories of this disorder have been retained from the DSM-III-R with some modifications. Intermittent Explosive Disorder, Kleptomania, Pyromania, and Trichotillomania are discussed here. See Chapter 14 for a discussion of Pathological Gambling. Disorders that do not fit established criteria but share characteristics of the Impulse Control Disorders such as compulsive buying (Faber, 1992) and sexual impulsivity (Barth & Kinder, 1987) have been categorized as Impulse Control Disorder – Not otherwise Specified (NOS).

The Impulse Control Disorders are characterized by the patient's failure to resist an impulse that results in harmful behavior. Generally the impulse is experienced as increased arousal or tension culminating in the act which is felt as relief or gratification, i.e., is negatively reinforcing. There may be guilt or remorse following the behavior. Impulsive behaviors occur in the context of numerous Axis I and Axis II disorders, and the Impulse Control Disorders must be distinguished from these by close attention to differential diagnoses. Indeed, a high rate of mood disorders and anxiety disorders may appear comorbid to the Impulse Control Disorders (McElroy, Hudson, Pope, Keck & Aizley, 1992).

This chapter discusses the treatment of the Impulse Control Disorders from an empirical, cognitive-behavioral perspective. A detailed treatment protocol

for Trichotillomania will be proposed as a model for the treatment of these little-studied disorders.

Intermittent Explosive Disorder

Description

Aggressive outbursts have long been the concern of clinicians. The Intermittent Explosive Disorder diagnosis is given only after a number of other diagnoses have been ruled out. Medical conditions and substance intoxication can result in aggressive behavior. Psychotic disorders, conduct disorders, and some of the personality disorders may feature aggressive outbursts. A culture-specific condition called Amok is characterized by aggressive outbursts with amnesia (APA, 1994). Simon (1987) described the Berserker/Blind Rage Syndrome as a subset of Intermittent Explosive Disorder deserving of study. Symptoms of "blind rage" have captured the imagination of the public for centuries.

Concerns have been voiced about the legitimacy of Intermittent Explosive Disorder as a separate disorder, especially because of the number of studies indicating abnormalities in serotonergic function, complex-partial seizures, and family histories of alcoholism (McElroy et al., 1992). Anger attacks have been posited as a variant of Panic Disorder (Fava, Anderson & Rosenbaum, 1990) and related to depression (Lion, 1992). Should such concerns seem moot, the legal defense of "irresistible impulse" highlights the importance of the nosology of this disorder.

Pure cases of Intermittent Explosive Disorder are found to be quite rare (APA, 1987) although reliable information is scarce. Onset is usually in the second or third decade of life and it is more common in males (APA, 1994). Patients with temper outbursts were previously considered to have limbic system dysfunction. The symptoms of Intermittent Explosive Disorder are found in so many of the disorders that it can be considered a diagnosis of exclusion (Lion, 1992). The category is retained in the DSM-IV with the elimination of the criterion indicating the lack of generalized impulsiveness or regression between episodes (APA, 1994). "Soft" neurological signs are acceptable in the new classification, and certain personality traits (e.g., narcissistic, paranoid, obsessive, schizoid) are listed as predisposing factors (APA, 1994).

Studies on Intermittent Explosive Disorder are few and far between, with most focusing on pharmacological interventions and neurological speculations as to etiology. A large study several years ago by Bach-y-Rita, Lion, Climent & Ervin (1971) examined 130 patients in a large metropolitan psychiatric emergency room. Conventional neuropsychological examinations proved negative, although histories of coma-producing conditions such as meningitis, febrile convulsions, and head injuries were often found. High incidence of family

violence and alcoholism were found, and twenty five patients had idiosyncratic alcohol effects with violent eruptions after a few drinks. Pyromania was present in 21 cases. The average age was 28.

Bach-y-Rita's (1971) patients were mostly dependent males with hyper masculine sex role identifications who were chronically anxious and insecure. Poor coping skills and inadequate ego defenses were noted. Childhood deprivation and cultural impoverishment were factors. Usually there was a very short prodromal period of increased anxiety and fear of losing control. Small stimulations could then precipitate full-blown rages.

Twenty five years later, Bitler, Linnoila & George (1994) discussed their sample of Intermittent Explosive Disorder patients who "lose control" and are physically violent toward spouse or significant others. Their four cases each reported feeling trapped, criticized, rejected, and insecure before losing control. Somatic changes accompanied the aggressive outburst. Verbal aggression usually preceded the outburst as well. These patients reported a heightened sense of arousal before the incident, with a sense of release and fatigue immediately following. Guilt feelings often ensued. Bitler and colleagues (1994) proposed that preexposure to violence in childhood could have led to PTSD phenomena triggered by feeling "trapped." In each case, the reaction was out of proportion to any environmental stimulus or stressor. The autonomic symptoms suggest panic disorder, e.g., palpitations, feeling out of control, etc. These cases shed light on the topography of this peculiar disorder.

The nature of the Impulse Control Disorders is such that the impulsive behaviors are to varying degrees intermittent. The eliciting events and contingencies associated with the behaviors are often undetected by direct observation. Assessment may prove difficult, especially in cases where the behavior itself is a reinforcing event. In the case of Intermittent Explosive Disorder, there may not appear to be precipitants, but there are often noxious internal states preceding the outbursts. Negative reinforcement occurs with the escape from these aversive internal states. The behavior (outburst) itself is the reinforcer.

Feeling cornered, criticized, and rejected may be "setting events" (Wahler & Graves, 1983) for explosive behavior. Setting events are similar to what Michael (1982) described as "establishing operations." Depriving a pigeon of food will increase responding if the reinforcement is food. Likewise, the probability of an aggressive outburst may be increased with the number of perceived rejections and criticisms. These aversive stimulations are the establishing operations or "setting events" for escape and avoidance behavior. In the case of Intermittent Explosive Disorder, the aversive stimulation is mostly internal and noxious (feeling trapped). The escape , in the absence of a learning history for modulating ones' own mood states, is a violent outburst. Had there been demands put on the individual or even perceived slights, these stimuli will rapidly disperse once he explodes. A secondary function of the outburst may be to keep people at bay.

Treatment

Bach-y-Rita's patients were treated with medication and referred for psychotherapy to deal with anxiety and anger control (Bach-y-Rita et al., 1971). Medications have long been used for these sorts of behaviors. They likely have a palliative effect because they reduce the internal stimuli. While medicines may work for a short while, the intermittent nature of Intermittent Explosive Disorder might indicate the use of constant medication. The medication remedy may prove costly and ineffective, however, because no learning has occurred. The escape behavior, i.e., violence, must be blocked in the presence of the aversive stimulation for extinction to occur. Nonpharmacological treatment is characterized by identifying the psychosocial stressors and affective cues. Precipitating events, both external and internal, are explored in detail with the client so that the rage "triggers" can be defused (Lion, 1992).

The protocol for Intermittent Explosive Disorder, if one existed, might then include the presentation of escape-provoking stimuli while at the same time blocking the violent sequelae. In many cases this might involve the use of physical restraint in an inpatient setting. This form of treatment has a precedent in its application to mentally retarded individuals. Studies with retarded children indicate that aggressive outbursts are often maintained by negative reinforcement, in that the child escapes demand situations by acting aggressively. Preventing the escape behavior will extinguish the aggressive behavior. Alternatively, reducing the demands on the child contingent on nonaggressive behavior is equally effective (Carr, Newsom & Binkoff, 1980).

In cases where extinction is applied without attention to the setting events, however, there remains the task of reducing the internal stimulation via some other means. The differential reinforcement of other (DRO) behaviors approach has been successful in treating self-injurious behavior (Steege et al., 1990). DRO is generally more effective when combined with extinction of the target behavior. Thus, alternative methods of emotional modulation need to be modeled and reinforced for Intermittent Explosive Disorder clients. Of course all this must be done with the endorsement and collaboration of the client. Despite the above speculations for the treatment of Intermittent Explosive Disorder, the authors could find no such application in the literature.

Kleptomania

Description

Kleptomania is characterized by the recurrent failure to resist impulses to steal objects that are not needed or valued monetarily. There is a sense of tension before and pleasure or relief during the theft, often followed by guilt

(APA, 1994). Kleptomania is rare, representing only 5% of all shoplifters. Aside from ordinary theft, Kleptomania should be distinguished from stealing that occurs during manic episodes or as a result of dementia (APA, 1994).

Kleptomania is often concomitant with mood disorders (McElroy, Pope, Hudson, Keck & White, 1991b), with many patients reporting fluctuations in mood before and after the impulsive theft. Some report a "rush" that alleviates a chronic sense of despair and dysphoria (McElroy et al., 1992). This "rush" may be the result of risk-taking behavior (Fishbain, 1987). A study of 20 patients with Kleptomania found that 80% met the criteria for anxiety disorder, 60% had eating disorders, and half had substance use disorders. Among the first degree relatives of these subjects, 20% had mood disorders, and 21% substance use disorders (McElroy et al., 1991b). A recent study surveyed 1649 shoplifting cases to find only 29 (3.2%) with mental illness. Of these, only 4 were considered kleptomaniacs (Lamontagne, Carpentier, Hetu & Lacerte-Lamontagne, 1994).

Kleptomania may be established in adolescence and remain undetected for years. Traditional clinical wisdom suggests that depressive mood predisposes stealing in an effort to obtain symbolic compensation for a perceived loss. Most patients express guilt following the act and do not exhibit other antisocial behavior (Goldman, 1991). Some authors relate the development of Kleptomania to child abuse and other factors in the first few years of life (Goldman, 1991).

Treatment

There are few treatment reports available for Kleptomania, and these are case studies. Schwartz & Hoellen (1991) reported the use of cognitive behavior therapy over 39 sessions. Their patient, a 42-year-old female, was challenged repeatedly to dispute her irrational self-statements. Thoughts of unbearable wrong-doing, e.g., "I must not steal. It is damnable.", were replaced with "I do not want to." The therapist also worked with the patient's assertiveness with respect to her marital relations (Schwartz & Hoellen, 1991). Another case history by Marzagao (1972) details the use of systematic desensitization in the treatment of Kleptomania. In this case the high anxiety situations were desensitized in 16 sessions, and resulted in remission of stealing at follow-up. Gauthier & Pellerin (1982) had moderate success with covert sensitization training. Their client, a middle-aged female, imagined stealing incidents followed by arrest, prosecution, incarceration, and other aversive consequences. She was to practice imagining these scenarios 10 times a day, and to use the technique whenever the urge arose. The frequency of urges was 14 at baseline and 0 at treatment end. Gains were maintained at follow-up, although she reported stealing on one occasion while on a vacation (Gauthier & Pellerin, 1982).

Similar cases of the successful use of covert sensitization for kleptomania were reported by Glover (1985) and Guidry (1975).

Imaginal desensitization has also been used to treat kleptomania. A case report by McConaghy & Blaszczynski (1988) detailed the successful treatment of two female kleptomaniacs. Both were instructed in simple relaxation and asked to imagine scenes where they approach items to be stolen, but stop themselves at the last minute. Five daily sessions of this simple treatment resulted in a remission that was maintained at 3 week follow-up.

A caution is in order in light of the fact that so little research exists on this rare disorder. Kleptomaniacs rarely seek treatment unless they have been caught (Murray, 1992). In two of the cases above, the patients were facing charges. The high comorbidity reported for Mood Disorder (McElroy et al., 1992) suggests that treating only the compulsive stealing might not be sufficient. It should be noted that thymoleptic medications have been used successfully with diagnosed kleptomania. McElroy, Hudson, Pope & Keck (1991a) studied responses to medication and found that over 50% of clients treated had a complete remission of stealing while on the medication. More research is certainly needed, perhaps combining or contrasting behavioral methods with medications for those dually diagnosed with mood disorder and kleptomania. At present, covert sensitization has the most empirical support as a psychological approach. The adventurous clinician may wish to explore in vivo treatment of the urges to steal, perhaps joining the patient on shopping trips.

Pyromania

Description

Potentially devastating, pyromania is defined as the repeated deliberate setting of fires. As with other Impulse Control Disorders, there is arousal before and relief during and after the event. There may be a fascination with fire and related stimuli. Individuals with Pyromania do not set fires for profit or in order to damage property. True Pyromania is not the result of Mental Retardation or dementia. The diagnosis is not given if the behavior is a symptom of another disorder such as Conduct Disorder or Antisocial Personality Disorder (APA, 1994).

Onset of Pyromania is usually in childhood. Kolko & Kazdin (1988) found up to 20% of an outpatient sample of children had set fires. Child firesetters often had adult role models, experienced family stress, and had poor social skills. Bach-y-Rita et al. (1971) found a high rate of firesetting in their sample of adults with episodic dyscontrol.

Firesetting is the result of a myriad of causes. It is poorly understood, seldom identified in adults, and rarely treated. Most case reports pertain to

children. Kolko & Kazdin (1994) asked 95 children to describe their firesetting incidents. Often the fires were set in and around the house with incendiary materials easily accessible. Peers were involved in many instances outside the home. Most children exhibited little remorse and few reported anger. Those who repeatedly set additional fires at 2-year follow-up were found more likely to have planned their fires. Firesetting children are indistinguishable from others in treatment, and may represent a subset of delinquents (Hanson, MacKay-Soroka, Staley & Poulton, 1994). Showers & Pickrell (1987) in a study of 186 juvenile firesetters found that more than 60% of them had primary diagnoses of Conduct Disorder. Another 20% were diagnosed with Attention Deficit Disorder. The family characteristics of these youngsters were distinguished by father absence and parental drug and alcohol abuse. Twenty-eight percent of the firesetters had histories of foster care placement. Physical abuse and neglect were contributing factors. The authors concluded that the firesetters were virtually indistinguishable from the Conduct Disorders except that they also lit fires. Early intervention with abused and neglected children was urged (Showers & Pickrell, 1987).

Leong (1992) studied 29 court-referred arsonists and found a high rate of psychosis (52%). He rarely found a diagnosis of Pyromania. Geller (1987) suggested that firesetting by adult psychiatric patients is more likely associated with schizophrenia, OCD, and personality disorders. Alcohol abuse and mental retardation may be contributing factors in firesetting. According to Geller (1987) firesetters often have social skill deficits and use firesetting as a vehicle of communication. Interventions based on social learning models are appropriate in such cases. This approach is supported by Rice & Harris (1991) whose results indicate that social incompetence and social isolation were important antecedents. Interventions targeting social skills and social support might prevent further firesetting in some cases (Rice & Harris, 1991).

Treatment

Treatment reports in the literature are predominantly case studies focused on children. Some form of parent training and overcorrection procedure is usually applied. Parents then spend time with the child setting 'safe' fires. alternative methods of problem solving are coached by the parent. Behavior contracts are often imposed. Fire safety may be taught directly. Firemen may be enlisted as positive role models. Family therapy addresses the broader context in which the firesetting occurs (Soltys, 1992).

An approach detailed by Bumpass, Fagelman & Brix (1983) had therapists recapitulate the firesetting behavior in session by having the child go over the event, detailing feelings and thoughts that arose while setting the fire. These thoughts and feelings were graphed out for the child and family in an effort to

raise awareness of the moods and behaviors leading to the setting of fires. Exploring the antecedent conditions and suggesting alternatives was all that was necessary apparently, as 27 of 29 clients had set no fires in the 2 years following treatment (Bumpass et al., 1983).

There is evidence that cognitive-behavioral interventions for firesetting helps in some cases. Socials skills training combined with satiation, covert sensitization, relaxation, and response cost were combined in one treatment package and found effective (Koles & Jensen, 1985). Satiation and the positive reinforcement of alternative behaviors met with success in stopping recurrent firesetting (Kolko, 1983).

The literature on firesetting is very limited. The prevalence of this disorder is still an open question. Most reported work has been limited to clinical case studies, with the exception of the work of Kolko & Kazdin (1994). More such work is needed.

Trichotillomania

Description

Trichotillomania (Greek for "hair-pulling madness") is a term coined by Hallopeau over a century ago (Hallopeau, 1889) and has retained its classification as an Impulse Control Disorder (APA, 1994). Diagnostic criteria for trichotillomania require the recurrent pulling out of one's hair with noticeable hair loss, a sense of tension before pulling the hair or while trying to resist the impulse, and relief or pleasure when pulling out the hair (APA, 1994). The behavior must not be caused by another disorder or dermatological condition, and it causes significant distress in social or occupational functioning (APA, 1994). Little data is available on prevalence, as most sufferers conceal the behavior. A recent study of college freshman reveals a prevalence rate from 1% to 2% for trichotillomania (Rothbaum, Shaw, Morris & Ninan, 1993). In a study of sixty chronic hair-pullers, Christenson, Mackenzie & Mitchell (1991) found that 17% did not meet the tension reduction criteria (DSM-III-R criteria B and C). These criteria have not changed significantly in the DSM-IV (APA, 1994).

Trichotillomania can be quite disabling because it strikes during sensitive developmental years. The age of onset is often in childhood with peaks between 5–8 years and again at 13 years (APA, 1994). The course of the disorder is often chronic, with a mean duration of 21 years in one study (Christenson et al., 1991). Comorbidity is very common. Reeve, Bernstein, G. A. & Christenson (1992) attempted to delineate all Axis I conditions in a group of childhood hair-pullers. Children who did not report mounting tension and relief when hair-pulling were included in the study. Ten children underwent 3–

4 h of psychometric testing. Seven of the ten had at least one diagnosis on Axis I. Six had Overanxious Disorder, two had Dysthymia, one had Separation Anxiety Disorder with Simple Phobia and Overanxious Disorder. Criteria for OCD were not met by any. Only one child actually met the urge/gratification criteria. Stress was considered to be a major precipitating factor (Reeve et al., 1992).

Some clinical researchers have suggested that Trichotillomania may be a form of Obsessive-Compulsive Disorder (OCD) because of its response to serotonin reuptake inhibitors (Jenike, 1989). However, a large proportion of Trichotillomania sufferers pull their hair with 'incomplete awareness' (Christenson et al., 1991; Christenson, Ristvedt & MacKenzie, 1993) rather than to reduce anxiety or respond to an obsession. Further, OCD is driven by negative reinforcement whereas Trichotillomania appears to be an appetitive drive modulated by satiation. In one study, subjects with Trichotillomania were compared to those with Obsessive-Compulsive Disorder (OCD) and another group of nonclinical hair-pullers (Stanley, Swann, Bowers, Davis & Taylor, 1992). Both the clinical and nonclinical hair-pullers differed from the OCD group on scales measuring depression, extraversion, and OCD symptoms. The OCD group presented as more disturbed on these measures. A high level of generalized anxiety may be common to all three groups. (Stanley, Borden, Mouton & Breckenridge, 1995).

Treatment

As with most of the other Impulse Control Disorders, a variety of pharmacological treatments have been reported to be effective in the short term treatment of Trichotillomania (Ratner, 1989). Many of these medication studies are poorly controlled and without adequate follow-up (Rothbaum & Ninan, 1994). A recent comparison of cognitive-behavior therapy (CBT) to clomipramine in a double-blind placebo controlled study in fact suggests that CBT was significantly more effective than clomipramine or placebo (Ninan, Rothbaum, Marsteller, Knight & Eccard, 1995).

Behavioral treatments for Trichotillomania have been promising. Habit reversal was developed by Azrin & Nunn (1973, 1978) as a method to control tics and other habits such as nail-biting and hair-pulling. It involves increasing the patient's awareness of each occurrence of the habit and interrupting it by means of a competing response. In an uncontrolled investigation, they reported habits were "virtually eliminated" after one treatment session. However, only one of their subjects had trichotillomania (Azrin & Nunn, 1973). Habit reversal reportedly eliminated Trichotillomania in four subjects very quickly in another uncontrolled study (Rosenbaum & Ayllon, 1981). Various components or modifications of habit reversal have been successfully applied in the treat-

ment of Trichotillomania (Miltenberger & Fuqua, 1985; Rodolfa, 1986; Rothbaum, 1990, 1992; Tarnowski, Rosen, McGrath & Drabman, 1987).

Taylor (1963) was the first to report a behavioral treatment for Trichotillomania. He instructed his patient to monitor the behavior and to tell her hands to stop. This simple intervention was successful, with only two brief relapses at 3 month follow-up. Many of the case studies since Taylor (1963) have reported good results with self-monitoring and self-imposed contingencies (Friman, Finney & Christopherson 1984).

Some recent studies with young patients do not rely as much on the motivation and self management aspects of treatment often required for successful treatment. Blum, Barone & Friman (1993) proposed physical nurturing by a parent combined with time-out and response prevention (wearing socks on the hands) to decrease hair-pulling. Lengthy or multiple component programs may not be necessary for younger children with uncomplicated Trichotillomania (Blum et al., 1993). Brief interventions may not always work with young children, however. Vitulano, King, Scahill & Cohen (1992) treated young hair-pullers with a six session program of self monitoring, relaxation, habit interruption (fist clenching), overcorrection (brushing the hair), annoyance review (Azrin, Nunn & Frantz, 1980), and reinforcement. Compliance with treatment was an issue, and conflicts between the parents and child arose often. The authors suggested removing the hair-pulling from its role in parent-child conflicts and being ever mindful of developmental and family system issues (Vitulano et al., 1992). Some children who are unresponsive to brief family interventions may require a complete and intensive CBT treatment such as that suggested by Hamdan-Allen (1991). The child can be taught to monitor the behavior closely while recognizing the maladaptive effects and cues. Incompatible overt and covert responses are then taught, such as positive self-talk, imagery, fist-clenching, and relaxation (Hamdan-Allen, 1991).

Yung (1993) reports a case study in China of a child hair-puller. Chinese parents traditionally view behavior problems as disciplinary issues. An aversive procedure was applied in this case due to the parents' rejection of a token economy approach. A bitter herbal solution was applied to the child's thumb, as thumb-sucking occurred concomitantly with hair-pulling. Both behaviors were eliminated within 6 days. This culture-relevant approach succeeded in part by modifying a covarying behavior. A study by Altman, Grahs & Friman (1982) treated a 3-year-old's Trichotillomania in such a manner by focusing on the covarying thumbsucking. An aversive substance was applied to the girl's right (sucking) thumb three times a day, resulting in clinically significant decreases in both behaviors (Altman, Grahs & Friman 1982). Token economies, time-outs, contingent parental attention, overcorrection by hairbrushing, and similar behavioral strategies for the treatment of child hair-pullers in the home have had mixed results due most often to parental noncompliance with the procedures (Friman, Finney & Christopherson, 1984). Treatment accept-

ability is an important factor in any intervention. The habit reversal procedure (Azrin & Nunn, 1973) seems most acceptable to children and their families (Tarnowski et al., 1987).

Negative practice, based upon the principles of satiation and increased awareness, has been applied to nervous habits including trichotillomania. For Negative Practice, the patient is instructed to go through the motions of pulling the hair for 30 s every hour without actually pulling. Azrin, Nunn & Frantz (1980) compared Negative Practice to habit reversal and found habit reversal to be about twice as effective. Habit reversal appears to have the best track record for the treatment of Trichotillomania (Friman, Finney & Christopherson, 1984; Rosenbaum & Ayllon, 1981).

A Trichotillomania Treatment Program has been developed by Rothbaum (1990) and is presented below. The stress management component is based on a treatment package developed by Kilpatrick and Veronen and their colleagues and adapted by Foa and Rothbaum and their colleagues (Foa, Rothbaum, Riggs & Murdock, 1991).

Cognitive-Behavioral Treatment of Trichotillomania

This program requires 9 weekly 45-min treatment sessions in which the patient is taught habit reversal (based on Azrin & Nunn, 1978), stimulus control, and stress management techniques (see Table 14.1 for summary treatment outline). The abbreviated treatment manual follows (Rothbaum, 1992).

Session 1

Information gathering. Any clinical intervention begins with a thorough assessment. In addition to the primary goal of assessment, i.e., learning the extent of hair-pulling, careful evaluation can provide other valuable information. Assessment should explore not only the number of hairs pulled, but also the pattern of pulling, the time of day pulling is most likely, the situations most associated with pulling, thoughts surrounding pulling, and whether pulling occurs in response to a strong urge or without awareness.

Self-monitoring. Self-monitoring involves having the client record each occurrence of hair-pulling, the number of hairs pulled as well as other relevant information, including the date and time, situation, thoughts, urge, and number of hairs pulled. Saving all hairs pulled is a powerful form of self-monitoring. It involves having the client save every hair pulled, putting it in an envelope or container, and bringing them in to the therapist for inspection. This also serves as a measure of treatment compliance, since collecting hairs is considered aversive by many clients.

Interview. A sensitive clinical interview will involve all aspects of hair-pulling as well as motivational concerns and general adjustment. A general

Table 14.1. Summary Treatment Outline

Session 1:	Information Gathering
	includes response description, response detection
	(awareness training), identifying response precursors (early warning),
	identifying habit prone situations, and self-monitoring
Session 2:	Habit Reversal Training
	includes rationale for treatment, habit inconvenience review, competing
	response practice, prevention training, and symbolic rehearsal
	Stimulus Control
	self-monitoring continues throughout treatment
	continue information gathering for general assessment
Session 3:	Deep Muscle Relaxation
Session 4:	Differential Relaxation plus Breathing Retraining
Session 5:	Thought-Stopping
Session 6:	Beck/Ellis Cognitive Restructuring
Session 7:	Guided Self-Dialogue (e.g., preparing for a stressor)
Session 8:	Covert Modeling and Role Play
Session 9:	Continuation of No. 8
	Relapse Prevention
	Termination

psychosocial assessment will include a history of hair-pulling, results of previous treatments, other problems, family history, etc. More specifically, information should be gathered as to what exactly the client does. "I pull out my hair," is insufficient. It is necessary to know when (e.g., only when alone, usually in the evening), where (e.g., at desk, at home, in bed), how (e.g., with index finger and thumb, right hand only), what (e.g., examines after pulls, puts in mouth, chews on root), etc.

Response detection. Is the client always aware when she is pulling? If not, the therapist can train her in session by pointing out when her hand goes towards her head. The client will need to be aware of every pull to prevent it. Help the client identify each step involved in the act of pulling a single hair, beginning with the earliest indicator (e.g., a twitch in the fingers of right hand, a thought). Sometimes it is easier to work backwards. Also list every situation in which pulling occurs. The therapist will teach the client to be prepared when entering these situations.

Trichophagia. Some clients with trichotillomania mouth or chew the hair. This can even result in trichobezoars (hairballs) besides actually interfering in the assessment of number of hairs pulled. Clients should be assessed for this behavior.

Observational rating. The therapist will often visually inspect the bald patches and make a rating. This is the basis for the Clinician's Global Improvement scale (CGI; Guy, 1976) and the Trichotillomania Impairment Scale

(Swedo, Leonard, Rapoport, Lenane, Goldberger & Cheslow, 1989), among other rating scales. Photographs of the bald spots are also useful, and can be compared pre-treatment to post-treatment as an objective indicator of treatment success (Friman, 1987; Rosenbaum & Ayllon, 1981). Privacy prohibits observation of all pulling sites, for example if a clients pulls pubic hair, so observational ratings may be limited.

Significant others' report. Significant others' reports of hair-pulling become important when the client is unreliable for any reason. Some clients are less than reliable reporters. Included here are children, mentally retarded or deficient persons, and clients who are not motivated for treatment. When clients' hair starts regrowing, it is often nice when others notice their improvement, and this praise can be elicited from significant others.

Standardized measures. Currently, there is no single standardized measure of trichotillomania. Clinicians use the methods described above, most typically client self-monitoring and interview. There are no standard objective criteria for rating bald patches. Probably the most used or adapted measure for trichotillomania is the Yale-Brown Obsessive Compulsive Scale (Y-BOCs) (Stanley et al., 1992), a 10-item scale that rates severity of obsessions and compulsions in obsessive-compulsive disorder (OCD). Derived from the Y-BOCS, the NIMH-Trichotillomania Severity and Impairment Scales (NIMH-TSS, NIMH-TIS; Swedo et al., 1989) has been used in studies of trichotillomania. It yields a severity score (NIMH-TSS) and an impairment score (NIMH-TIS).

Problems in assessment. Clients often conceal the effects of their hair-pulling with hair styles and make-up. Reactivity may be a problem, rendering self-monitoring inaccurate as a baseline measure. However, this can be used therapeutically. As with any disorder, there may be factors maintaining the behavior that are not readily noticeable. Many trichotillomania sufferers are quite distressed, embarrassed, and ashamed of their behavior and appearance. Then for some, especially children and adolescents, secondary gain may be involved. For example, hair-pulling may be used as a punishment against parents, to gain attention within the family, or as an excuse to avoid participation in undesired activities (e.g., swim practice). Sometimes it may be necessary to assess the family's response to the hair-pulling, as there may be patterns of interaction maintaining the disorder. Even for distressed adults, other factors may be operating, such as avoidance of relationships, intimacy, or certain activities (e.g., social events).

Target behavior. It is also sometimes difficult to determine the target behavior. While hair-pulling is the bottom line, assessment might focus on the number of hairs pulled, the duration of hair-pulling episodes, the resulting alopecia, the urge to pull, or precipitating behaviors. In addition, the primary areas pulled will affect how severe the hair-pulling appears. For example, there may be a ceiling effect if the client primarily pulls eyelashes or eyebrows. Clients may have com-

pletely pulled out all lashes and/or brows, yet appear less severe than someone who pulls out scalp hair with an absolute greater number to pull.

Session 2: habit reversal training

Assessment of self-monitoring. The therapist should always inspect the client's self-monitoring and respond accordingly. The self-monitoring component is a means to gather data and to increase awareness of the behavior. If the client has ceased pulling, lavish her with praise and inquire as to how she accomplished this. If the client did pull, look for patterns. For example, did she pull more during the week or on the weekend? More or less at any particular time of day? More or less in certain situations? You want to be able to identify her high-risk situations from the self-monitoring.

Rationale for treatment. Therapist explains habit reversal according to Azrin and Nunn's (1973) rationale:

> "nervous habit originally starts as a normal reaction...become(s) a strongly established habit that further escapes personal awareness because of its automatic nature...[To treat] the client should learn to be aware of every occurrence of the habit. Each habit movement should be interrupted so that it no longer is part of a chain of normal movements. A physically competing response should be established to interfere with the habit (p. 620)."

Therefore, the client will be taught habit reversal to help control the urge to pull. We also want to change situations to make them less likely that the client will pull. To accomplish this, we will explore stimulus control techniques. Since most hair-pulling occurs, increases, or reappears in conjunction with stress, the client must learn effective ways to handle stress. Therefore, in addition to the habit reversal and stimulus control, the client will be taught stress management techniques. Finally, to help maintain treatment gains relapse prevention procedures will be included before the client is discharged.

Habit inconvenience review. This is intended to increase motivation. The client generates a list of inconveniences, embarrassment, and suffering that result from hair-pulling. Common ones will include social embarrassment, restriction of activities (e.g., swimming, going to hairdresser), avoidance of intimate relationships, decrease in self-esteem, etc. The therapist records and reviews the items with the client. The client is encouraged to seek sources of positive reinforcement associated with controlling their behavior.

Competing response practice. The competing response is one that is incompatible with hair-pulling. It must be able to be maintained for at least 2 min, be inconspicuous and easy to implement. It should produce heightened awareness of the habit and use the same muscles as hair-pulling. Making tight fists and holding for 2 min is a common competing response. The therapist practices the competing response with the client in session for a full 2 min.

Prevention training. The client is instructed to use the competing response at the very first sign of the habit. She is instructed to use it if nervous, has an urge to pull, or enters a high-risk situation.

Symbolic rehearsal. The client is instructed to close her eyes and imagine using habit reversal successfully in common habit-prone situations. The client might be asked to talk out loud about common high risk situations. During such a discussion, the therapist can ask that the client be vigilant about urges, catching them at their first appearance. Minimal prompting might be needed. The client should be symbolically rehearsing the competing response while carrying on a conversation with the therapist. The client is instructed to practice the competing response during the therapy hour as well as out of the office.

Stimulus control. Stimulus control is used to decrease opportunities to pull. Typical techniques are listed in Table 14.2.

Social support. Social support is addressed as an important adjunct to the therapy. Once the client has demonstrate some control over the impulse, family and friends can be enlisted as agents of change. Simply by commenting on the absence of episodes, significant others can prevent relapses. Family members can encourage the client to practice the exercises, do homework, etc. Knowledge of the family system is imperative, however, lest these attempts backfire.

Sessions 3 and 4

Relaxation. All sessions begin with a review of self-monitoring, habit reversal, stimulus control, the previous session's activity, and the client's homework assignments. Clients are instructed to practice skills at least twice daily between sessions.

Table 14.2. Stimulus Control Suggestions

– No touching hair, except while grooming
– Stay out of the mirror; no looking at hair
– Wear bandages on pulling fingers
– Wear rubber fingertips on pulling fingers
– Eat sunflower seeds inshells in high-risk situations
– Cover hair in high-risk situations
– Put something on hair (e.g., conditioner, dippity doo)
– Do something with finger nails (paint, cut, grow)
– Be around people
– Get up and move, go for a walk, get something to drink
– Change the situation
– Exercise regularly
– Go to the library and study (especially for students)
– Wash hair more frequently
– Wear gloves
– Keep hands busy: can use koosh ball, squish ball, worry stone, needlework, Nintendo, etc.

The therapist teaches deep muscle relaxation beginning in Session 3. During the fourth session, relaxation training is repeated using the "focusing" and "letting go" procedures, adding the *breathing retraining* at the end. Instructions for the breathing retraining are as follows:

> "Please try to take in a *normal* breath rather than a deep breath. Inhale normally through your nose. Unless we are exercising vigorously, we ought to always try to breath through our noses. After inhaling normally, I'll ask you to concentrate on the exhalation and drag it out. While slowly exhaling, we will also have you say the word CALM silently to yourself while you are exhaling, and I will say it aloud when you practice in here [May also use RELAX if client prefers]. CALM is a good word to use because in our culture it is already associated with nice things. If we are upset and someone tells us to 'calm down', usually it is associated with comfort and support. It also sounds nice and can be dragged out to match the long, slow exhalation: c-a-a-a-a-a-l-m."

> "In addition to concentrating on slow exhalation while saying CALM to yourself, I want you to slow down your breathing. Very often, when people become frightened or upset, they feel like they need more air and may therefore hyperventilate. Hyperventilation, however does not have a calming effect. In fact it generates anxious feeling. Unless we are preparing for one of the three **F's** (i.e., fight, freeze, flee) in the face of a real danger, we often don't need as much air as we are taking in. When we hyperventilate and take in more air, it signals our bodies to prepare for one of the three **F's** and to keep it fueled with oxygen. This is similar to a runner, taking deep breaths to fuel her body with oxygen before a race and continuing to breath deeply and quickly throughout the race. Usually, when we hyperventilate, though, we are tricking our bodies. And what we really need to do is to slow down our breathing and take in *less* air. We do this by pausing between breaths to space them out more. After your slowed exhalation, literally hold your breath for a count of four [may be adjusted if necessary] before you inhale the next breath."

The therapist should instruct the client to take a normal breath and exhale very slowly as he or she says the word CALM or RELAX to herself. Train him or her to pause and count to 4 before taking a second breath. Repeat the entire sequence 10–15 times, for 10–15 breaths. Try to watch the client's chest or abdomen to follow his or her own natural breathing rhythms. Towards the end of the exercise, the therapist should start fading away his or her instructions while the client continues to practice.

Differential relaxation is taught following deep muscle relaxation. This involves teaching the client to recognize which muscles are necessary for specified

activities and to use the minimal amount of tension in these muscles to complete that activity. She is to allow muscles not required for the activity to relax. Examples to use in session include sitting, standing, and walking. Emphasize practice in client's daily activities (e.g., driving, writing).

Session 5

Thought stopping. Thought stopping originally described by Wolpe (1958), is utilized to counter ruminative or obsessive thinking. Self-monitoring may reveal thoughts that set the occasion for hair-pulling. Such thoughts may occur very early in the response chain. Clients will often report particular thoughts that they notice just prior to hair-pulling. The client with trichotillomania can be trained to inhibit such thoughts. If a client reports such thoughts in their weekly review, these can be used to teach the thought-stopping method. Simply ask the client to close her eyes and to think the usual troublesome thoughts that typically occur prior to an episode. After about 30–40 s, the therapist slams the desk with a book or fist, shouting "STOP!" loudly. The thoughts invariably stop at this point, and the client should be made aware of this fact. Repeat this whole process a few times before having the client try it on her own. The command "STOP!" should be internalized at this point and will remain subvocal and covert. Many clients profit from using imagery by picturing a big red stop sign when shouting "STOP" silently. The key is to replace the unpleasant thought with a distracting one, in the meantime disrupting the chain of behavior leading to hair-pulling. Simple distraction may serve the same function as long as it is not anxiety-producing. Any thought will do as long as it doesn't cause the client distress and it actively engages her thinking. Help the client decide what his/her distracting thought will be before leaving the therapist's office.

Sessions 6

Cognitive restructuring. The therapist introduces cognitive restructuring (Beck, Rush, Shaw & Emery, 1979; Ellis & Harper, 1961) focusing on how our thoughts affect our reactions. Examples are generated and the therapist assists the client in assessing the rationality of the beliefs, consequently challenging them, and replacing them with positive (rational) self-statements.

Because negative thinking looms large in the disorders of anxiety and impulse control, cognitive restructuring is useful as an antidote. Much therapy is talking, and it is in the moments when the client utters an absurdity that the therapist must offer a healthy challenge. As the client has been introduced to the idea that thoughts affect behavior, it is no leap of faith to purport that through changing what we think we can change what we do.

Clients are taught to recognize the automaticity of their thoughts, and how they might lead to specific feelings and behaviors. Such thoughts are very often irrational and maladaptative. The therapist challenges the thoughts immedi-

ately in session with such questions as: "What's the evidence for that? Is there any other way to look at it? How could we test that? What's the worst that could happen? What could you then do?" Repeated assaults on dysfunctional thoughts will often unearth core beliefs about the self. These core beliefs or "schemata" are usually unconscious overgeneralizations and distortions which can be very self-defeating. Often included are such beliefs as "feelings are dangerous, I must be in control at all times, I'm worthless." The therapist challenges these thoughts while affirming the positive traits in the client. The most important component is teaching the client to change his or her own pattern of thinking.

Reframing is a technique to encourage clients to take a different view of things. Instead of "I didn't get the job. I'm a failure", the client is presented with "I didn't have the qualifications required for that job, so it's good that it didn't work out. I can look at it as a practice interview for the job I really want!" Another example often used with anxious clients is to regard anxiety as a friendly, creative energy source. "Use your anxious feelings to inspire your presentation. Feel the energy well up inside you. Make sweeping gestures, slam the podium, that anxiety is the energy you need to succeed. Don't fight it, celebrate it!" In short, negative thoughts almost always have an equally valid counterpart.

Session 7

Guided self-dialogue. During guided self-dialogue, the therapist teaches the client to focus on her self-talk. Irrational, faulty, or negative internal dialogue is replaced with rational, positive, task-enhancing cognitions. The client is instructed to ask and answer a series of questions or respond to a series of statements. The framework for the guided self-dialogue is taken from Meichenbaum (1974). The four dialogue categories include statements for (1) preparation, (2) confrontation and management, (3) coping with feelings of being overwhelmed, and (4) reinforcement.

First, when preparing for a stressor the client must focus on the behavioral requirements, i.e., "What is it I have to do?" Negative thinking is addressed, "What is the likelihood of anything bad happening? How bad is it?" Direct the thoughts to positive self-statements such as "I can handle this. I've done this before. I have the support of a loving spouse. I will prevail!".

Secondly, explain to your client that when confronting a stressor it is important to keep the stress reaction at bay. "The stress might signal you to use the reframing technique we practiced. Focus on all you rehearsed. You can do this. Don't make more of it than there is. Proceed one step at a time. Breathe.

The therapist instructs the client when feelings of being overwhelmed arise, to take a breath and exhale slowly as s/he focuses on the present. Fear may rise, but it can be managed. Think to yourself "this will be over soon". You

may feel you need to pull your hair, but you don't have to pull your hair. Relax and slow things down a bit. Take your time responding.

Finally, the therapist explains, "As you look back over your stressful experience, you can make self-reinforcing statements such as, 'It was easier than I thought. I'm making progress. I handled that rather well. I'm getting quite good at this'" Rehearse the dialogue with your client until she internalizes it. Practice in session and use her daily stressors as opportunities to teach mastery over the internal dialogue.

Sessions 8 and 9: covert modeling, role play, and relapse prevention

Role-playing. During role-playing, the client and therapist act out scenes in which the client confronts a difficult situation. Usually, the therapist plays the client's role first and gets feedback, then roles are reversed. Role-plays are followed by feedback and are repeated until the client performs satisfactorily. The guided self-dialogue can serve as ideas for these role-plays.

Covert modeling. Covert modeling is analogous to role-playing in the imagination. The client is instructed to practice this technique by picturing someone else (e.g., a competent friend) successfully completing the activity, then substituting herself in the scene. Often it is difficult for the client to imagine him or herself successfully completing a feared activity, but s/he could imagine someone doing it well. So once they picture someone else completing it, it becomes easier to pull the other out and put themselves in the picture.

Relapse prevention. Discussion centers on how to control setbacks, which are highly likely. Between-session relapses are processed in detail. Teach the view that it is not a catastrophe, but an opportunity to further practice one's newly learned skills. Reviewing the skills that worked in the past will help. Often a quick run-through of stimulus control techniques is all that is necessary. Support and encouragement are always helpful. Remind the client that her goal is to go one day at a time without pulling.

It may be necessary to explore beliefs about relapse, especially if they are self-condemning. Dichotomous thinking might point to a failure experience, whereas a relapse could be an opportunity to strengthen the learning that has occurred. Slip-ups can be predicted and prepared for. They might even be "planned" as a paradoxical strategy to keep client awareness high. When a relapse occurs it should be gone over in session in explicit detail from start to finish. Relapse situations provide an excellent opportunity to review the entire treatment program.

Conclusion and Future Directions

Many patients have completed the above program successfully. In a controlled study, this program decreased hair-pulling more than clomipramine or

pill placebo (Ninan et al., 1995). This appears to be a promising comprehensive treatment for trichotillomania. Since there are so few cognitive-behavioral treatment packages for the impulse-control disorders, adapting this program for kleptomania, pyromania, and others may be a worthwhile endeavor. This treatment program was developed for the treatment of trichotillomania but can be applied easily to other impulse control disorders. The essential ingredients include: (1) assessment, including self monitoring and determining high risk factors for the behavior; (2) teaching the client ways to control the behavior, even when they get the urge; (3) stimulus control techniques, designed to decrease the likelihood of the behavior; (4) stress management techniques to help the client handle stress more adaptively; and (5) relapse prevention to help maintain the treatment gains.

The Impulse Control Disorders Not Elsewhere Classified represent perhaps the least researched category of disorders in the DSM-IV. It remains unclear what relationship these disorders have to the mood and anxiety disorders with which they seem so often comorbid. Since some of these disorders have serious consequences for individuals and society (e.g., pyromania, intermittent explosive disorder) it is imperative that current treatments be evaluated for effectiveness. Since the Impulse Control Disorders are intermittent, concealed, denied, and rare, this is a difficult endeavor.

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