
CHAPTER 28

Hothead Harry, Gnome Assassin

*Combined Treatment
of Intermittent Explosive Disorder*

Emil F. Coccaro, M.D.

Michael S. McCloskey, Ph.D.

Emil F. Coccaro, M.D., is the Ellen C. Manning Professor and Chairman of the Department of Psychiatry at the University of Chicago. Dr. Coccaro is a psychiatrist and clinical neuropsychopharmacologist whose National Institute of Mental Health–funded research in this area over the past 20 years has included work in the genetics, epidemiology, biology, neuroscience, and treatment of impulsive aggression.

Michael S. McCloskey, Ph.D., is Assistant Professor of Psychiatry at the University of Chicago Hospitals. He is a clinical psychologist who publishes research in the area of aggression and self-aggression. He has been the principal investigator on two National Institute of Health grants and three other foundation grants in these areas. Dr. McCloskey is currently developing a cognitive-behavioral treatment for intermittent explosive disorder.

HARRY, A 35-YEAR-OLD marketing director, called the anger and aggression treatment clinic after a heated argument with his fiancée. As Harry later explained, after being "nagged to death" by his fiancée to mow the lawn, he took a baseball bat and destroyed the couple's lawn gnome (his initial target was the lawn mower, but he thought the better of it). After this outburst, Harry's fiancée gave him the ultimatum to "get help or get lost."

Based on the phone information, I (E.F.C.) expected a bit of a "brute" and was a little surprised when a polite, slightly embarrassed man sheepishly introduced himself to me. Harry was clearly not a brute but a man acutely aware of how damaging his impulsive aggression was to him and others around him. It was easy to feel empathy for Harry as he described his personal history.

HISTORY

Harry stated that throughout his adulthood he has engaged in frequent aggressive outbursts including "heated arguments" and acts of property destruction ("too many to count"). He described several episodes in which he kicked in his television screen, smashed in a stranger's car window, and threw his cell phone at the wall—all in response to relatively minor provocations. Over the past few years, Harry estimated he had had approximately three arguments and one act of property destruction per week. In addition to jeopardizing his current relationship with his fiancée, his aggression had "ruined" past relationships, alienated his coworkers, and almost cost him his job. Harry explained that he became angry "at the drop of a hat...over anything...over nothing" and that the urge to be aggressive often felt overwhelming. Harry's eyes began to well up as he described the shame and remorse he felt following his aggressive acts, although he also reported feeling a huge sense of relief at the same time.

Difficulties with anger were not new for Harry or his family. Harry grew up in a middle class family living in the suburbs. His father, an accountant, although not physically abusive, "definitely had a hair trigger" and would often berate Harry in front of his friends for minor transgressions such as arriving home a few minutes late. Harry's sister and three brothers also had problems with verbal and physical aggression, so that family functions often turned into "war zones." Harry did quite well academically growing up, although he noted having difficulties getting along with classmates, which he attributed to his having low self-esteem. He described how his more severe aggressive acts

emerged during childhood, when he would occasionally break small toys or school supplies when he was angry or frustrated.

Harry's impulsive aggression became more prominent in adolescence when he found himself becoming involved in frequent arguments (one to four a week) with friends, classmates, and family members. The frequency with which he would break items in anger (two to eight times a month) also increased. Eventually, his repertoire of property destruction included breaking dishes and punching holes in walls. Because he thought drinking "a few beers" would "mellow [him] out," he began drinking daily during adolescence. At its most severe level when Harry was ages 16–19 years, his drinking met criteria for alcohol abuse.

After graduating from high school, Harry left home to go to college where he obtained his bachelor's degree in marketing. He was also able to develop friendships and a few romantic relationships in college. However, his aggression difficulties continued unabated. His friend gave him the nickname "Hothead Harry" after an incident in which Harry responded to receiving a poor test score by kicking his chair and "accidentally" breaking it.

Harry began working for a marketing firm right out of college, but left the firm after 6 months because he "couldn't stand" how the company was run. He also admitted to not getting along with his coworkers, whom he considered "unprofessional idiots." Harry dated a woman for 3 years in his 20s until they broke up over his irritability and outbursts. Harry was clinically depressed for approximately a month afterward. During this time he considered seeking help but decided, "There is no pill to stop you from being an asshole."

Throughout his late 20s and early 30s, Harry worked at the same company. His dedication to his work helped offset his interpersonal problems; however, his verbal outbursts alienated his coworkers. This situation came to a head 3 years earlier when Harry grabbed and pushed a coworker (his only reported act of physical assault) after an altercation in which Harry yelled at the coworker for not completing a task. The coworker told Harry to "chill out and start drinking decaf." After the incident, Harry was mandated to see an employee assistance program counselor for five sessions. Harry did not find these sessions useful, explaining, "We didn't really do anything." Harry was introduced to his fiancée 2 years before I saw him. Their relationship was tumultuous, with Harry being warned on several occasions to control his anger after incidents in which he would yell or break objects. Harry described a pattern of his feeling guilty and angry with himself after his outbursts, after which he would attempt to apologize only to become defensive and verbally aggressive again when his fiancée expressed her anger at

his overreaction. Harry was quick to add that he never threatened his fiancée nor put his hands on her in anger, stating "I am not that bad a guy, really. It is just my goddamned temper."

DIAGNOSIS

Harry's history of aggression was consistent with a diagnosis of intermittent explosive disorder (IED). Harry had a pattern of generalized reactive aggression that resulted in numerous acts of serious property destruction. The aggressive acts were not instrumental (i.e., they were not preplanned or used as a means to gain a tangible reward such as power or money). Rather, the aggressive behavior was an impulsive corollary to feelings of intense anger. Although Harry had a history of alcohol abuse and a previous major depressive episode, the aggressive behavior was not confined to either disorder, with most of his aggressive acts occurring in the absence of any comorbid Axis I disorder.

Harry's case illustrates clinical features common in IED. A number of his first-degree relatives also appeared to have problems with impulsive aggression. Studies show that up to 32% of first-degree relatives of IED patients also have IED (McElroy et al. 1998). Harry's symptoms appear to have first met full criteria for IED during adolescence, which is consistent with research showing the median age of onset for IED as mid-adolescence (Coccaro et al. 2005; McElroy et al. 1998).

Harry endorsed past alcohol abuse and major depression. Most individuals with IED have comorbid Axis I disorders. Among the more common are depressive disorders, anxiety disorders, and substance use disorders, with prevalence rates for each of these disorders over 50% in some IED population samples (Coccaro et al. 2005). The presence of these disorders would preclude a diagnosis of IED only if the aggressive behavior were better accounted for by the comorbid disorder. For example, if an individual becomes aggressive almost exclusively when intoxicated or during a depressive episode, then a diagnosis of IED should not be made. Although Harry had some obsessive-compulsive and paranoid personality traits, he did not have a personality disorder. Personality disorders are commonly comorbid with IED (Coccaro et al. 2005). Again, the existence of a personality disorder is only exclusionary when it appears to better account for the aggressive behavior. This distinction may be difficult to make in the case of individuals with antisocial personality and borderline personality disorders, both of which have anger and aggression as part of their criteria sets.

The outbursts described by Harry are also typical for individuals

with IED. Aggressive outbursts in IED tend to have a rapid onset (McElroy et al. 1998), often without a recognizable prodromal period (Felthous et al. 1991; Mattes 1990). These episodes are usually short-lived (less than 30 minutes) (McElroy et al. 1998) and can involve verbal assault, destructive and nondestructive property assault, and physical assault (Mattes 1990; McElroy et al. 1998). The outbursts most commonly occur in response to a minor provocation by a close intimate or associate (Felthous et al. 1991; McElroy et al. 1998), although in some cases they can occur without any identifiable provocation (McElroy et al. 1998).

Two other facets of Harry's aggression common to IED, but not currently a part of DSM-IV-TR criteria for IED, are the frequent acts of verbal aggression and the distress and impairment caused by the aggressive acts. Harry reported engaging in over 3,000 heated arguments as an adult. Most individuals with IED also report clinically significant verbal aggression (i.e., greater than eight arguments a month) (Coccaro 2003). The ubiquitous nature of verbal aggression in IED has led Coccaro et al. (1998) to develop alternate research criteria that allow for the diagnosis of IED for individuals who have frequent acts of verbal aggression. Harry clearly identified his anger and aggression as being personally distressing as well as interpersonally and occupationally impairing. The DSM-IV-TR criteria for IED do not include evidence of distress or impairment. However, research has shown that IED is associated with substantial distress, impairment in social functioning, and occupational difficulty as well as legal or financial problems (Coccaro 2003; Mattes 1990; McElroy et al. 1998).

TREATMENT

During the assessment, Harry voiced a strong desire to reduce his aggressive outbursts. However, he refused an initial recommendation of a combination of medication and cognitive-behavioral therapy (CBT). Harry agreed to the medication but felt he could not comply with the demands of CBT. He was started on fluoxetine (20 mg/day for 4 weeks and then 40 mg/day thereafter) and was came to our clinic biweekly for follow-up.

As with many behavioral disorders, the treatment of IED may include psychopharmacological and/or psychosocial intervention. In mild-to-moderate cases of IED, patients should be encouraged to begin CBT augmented by medication, if necessary. In this case, Harry declined psychotherapy at first and accepted a medication-only treatment, mostly due to his perception of what was easier and more

convenient. Medications such as fluoxetine have been shown to be effective in reducing aggression (especially verbal and object aggression) provided that the medication is continued for at least 6–12 weeks (Coccaro and Kavoussi 1997). Despite some improvement with this regimen, many patients continue to display aggressive behavior on "effective" doses and ultimately require psychosocial intervention so that strategies for dealing with environmental provocations may be learned and applied. In this regard, it is important to recognize that although medications appear to increase the threshold at which a patient with IED "explodes" through augmentation of central serotonergic activity, which in turn increases behavioral inhibition, medications do not address issues related to how patients could appropriately handle environmental provocations so that their threshold for exploding is never reached. For this, patients with IED benefit most from CBT.

Within 6 weeks, Harry's aggressive outbursts had decreased by 50%, and by 12 weeks he was having approximately one aggressive outburst per week. Although this represented a large improvement in his aggressive behavior, Harry realized that he was not doing as well as he would have liked. An increase in the fluoxetine to 60 mg/day did not reduce his aggressive behavior any further and only resulted in an increase in sexual side effects that, while tolerable on 40 mg/day po of fluoxetine, were not tolerable on 60 mg/day po of fluoxetine. Through our discussions, Harry realized that further improvement would require CBT if he wanted to reach a maximal level of symptom reduction. With that, Harry agreed to begin 13 weeks of CBT based on the treatment manual developed by Deffenbacher and McKay (2000). He was referred to my colleague (M.S.M.) for CBT.

Harry's initial refusal to engage in CBT suggested that his commitment to treatment may not have been sufficient to enable optimal results. Therefore the expectations and requirements of treatment were explained to Harry in even greater detail than usual. This meant first letting Harry know that although there is no empirically validated psychosocial treatment of IED (Galovski and Blanchard 2002), there is preliminary evidence to suggest that the 13-week course of CBT is effective in decreasing anger outbursts among IED patients (McCloskey et al. 2004). Harry smiled and replied, "So you think it works, but there are no guarantees." I (M.S.M.) thought, "So far so good, but here comes the hard part." The nature of the treatment was then discussed (i.e., 3 weeks of relaxation, 2 weeks of cognitive restructuring, and 7 weeks of combined relaxation, cognitive restructuring, and imaginal exposure). It was explained to Harry that for the treatment to be effective, it would require a strong commitment on his part, including his attending every

session and completing all at-home assignments, which could take up to an hour a day. Harry suddenly stared at me and yelled, "This is stupid! You know I can't do this." My previous experience with anger patients helped me mute my immediate reaction of annoyance and frustration. We discussed what sacrifices he would need to make if he were to engage in CBT. We then discussed how his life would change if he could stop having regular aggressive outbursts. He decided that the difference would be well worth the 50- to 75-hour time investment, and his demeanor changed immediately. He was on board to undergo CBT treatment.

It might be assumed that IED patients will tend to be aggressive toward their therapist. However, although they can be argumentative, in our experience they are rarely threatening or in any way physically aggressive within the context of the therapeutic relationship. On the few occasions when this has occurred, it tended to be early in treatment and due to the therapist's failure to make the patient feel adequately understood. It is also important for the clinician to foster motivation early in treatment. IED subjects can be ambivalent about treatment early in therapy, especially if they are "forced" into treatment by a loved one's ultimatum. In this situation, a motivational enhancement strategy such as nonjudgmentally having the subject list the pros and cons of remaining aggressive or continuing therapy might be useful.

Harry had initial difficulty identifying the process by which his anger escalated into aggression. This was not disconcerting because IED individuals often initially feel their anger goes, as Harry stated, "from 0 to 100." To increase his awareness of the anger that preceded his aggression (and to document his progress), Harry monitored his anger and aggression throughout treatment using an anger log. This was also helpful in demonstrating the aggression cues of which Harry was not previously aware. For example, Harry noticed that after his fiancée's mother had called, he would often have an argument with his fiancée.

The first three sessions with Harry went smoothly. He quickly grasped the relaxation training skills (i.e., diaphragmatic breathing, muscle relaxation, and relaxation imagery) and was encouraged by his ability to use them to calm down after becoming angry. The use of relaxation training at the beginning of treatment often provides IED patients with a feeling of accomplishment and allows the therapeutic relationship to develop before work on cognitive restructuring begins.

The third session also included work on the use of "time out." The development of an escape strategy early in therapy is extremely important because the potential for violence is always present in individuals with IED. This can be accomplished after teaching a basic relaxation re-

sponse, so that the patient has a beneficial behavior (rather than ruminating) to engage in during the time out. Harry initially balked at the use of a time out, stating that he would try it but felt he was being subjected to what he considered a child's punishment. I was impressed with Harry's ability to express a negative emotion without being overly hostile and his openness to try something with which he did not completely agree. That being said, I felt it important to address his impression of the time out strategy as being more appropriate for children. Harry was a sports fan, so the analogy of a coach's time out, which allows the players to "get out of the rut and get their heads together" was used. This had the desired effect, and Harry proceeded to rehearse using a time out during an argument with his fiancée.

By the fourth session, Harry was reporting a decrease in his anger and aggression. This was a relief as he was about to begin the treatment component that is often most difficult for IED patients—cognitive restructuring. Harry was able to identify automatic thoughts but had significant difficulty with the underlying cognitive distortion (i.e., blaming, misattribution, demanding/commanding, labeling, overgeneralizing, catastrophizing). However, his attitude in the sessions remained positive with little sign of the frustration he had evidenced at the outset of treatment. This was an unexpected treat and provided more evidence of Harry's commitment to treatment. With continued practice in sessions and at home, Harry gradually became quite adept at identifying his cognitive distortions.

Difficulty with cognitive restructuring, although frustrating for therapist and client alike, is not an insurmountable hurdle. It is helpful to proceed at a slow pace, using multiple examples and obtaining evidence that the client understands each step before moving on. However, the therapist must be cognizant of the low frustration tolerance of IED patients. Socratic questioning and rewarding partial success are useful in this regard.

By the sixth session, Harry reported with some pride that his co-workers had commented on his improved attitude. I was likewise pleased with his improvement. We began implementing cognitive and relaxation skills during imaginal anger exposure. Harry was asked to imagine a past provocation until he felt himself becoming angry again, then to use his cognitive and relaxation coping skills to regain his sense of calm. Harry was initially distressed about having to relive past anger situations and aggressive acts that he wanted to put behind him. I empathized with his desire to not reexperience his past anger and reframed the event as investing the anger toward developing skills that would lead to a calmer future. Harry was still skeptical but agreed to

continue. After his first imaginal exposure, he reported that the experience, though unpleasant, was not as unpleasant as he had initially feared, and he volunteered that he might have catastrophized earlier.

Harry arrived at our eighth session quite distressed, stating that the treatment was not working. I immediately asked about the events of the past week. He reported that he had had a "huge blowup" with his fiancée who called him at work to discuss their wedding plans. During the argument he yelled and cursed at his fiancée and finally threw his cell phone, damaging it. Harry had made great strides in reducing his tendency to be overly harsh and blaming of others; however, dealing with his own fallibility was still difficult. Harry had presented me with the perfect opportunity to address this blindspot. As he talked I jotted down a few key statements. After a discussion about how and why his self-expectations might be a "hot button," we then went over the key statements I had noted (e.g., "If I were getting better, this wouldn't have happened") and identified the cognitive distortions involved. We then discussed relapse prevention, differentiating a slip from a relapse and examining how to learn from slips. This process is usually saved for a bit later in treatment, but I wanted to take advantage of Harry's crisis state. Harry asked to call his fiancée and apologize while in the session, and after a brief rehearsal, did an excellent job of taking responsibility for his actions and allowing his fiancée to express her anger without his becoming defensive. As Harry would later tell me, this session had a powerful impact on his anger control efforts.

The remainder of therapy went smoothly. Harry continued to use his cognitive and relaxation skills in session while imagining a scene that typically caused him to become angry and out of session whenever he became upset. He had no other "big blowups" and his post-CBT assessment revealed a further 50% reduction in anger since the beginning of treatment and a near absence of aggressive outbursts over the past month. Moreover, Harry had not engaged in any acts of property destruction over the last 5 weeks of therapy. His quality of life also improved. At treatment's end, Harry stated that he was much happier at work and that his relationship with his fiancée was greatly improved.

Harry returned to the clinic 6 months later. He acknowledged that his anger and aggression had increased since leaving treatment (and after stopping the fluoxetine) to about one to two heated arguments a month, including two that involved property destruction (breaking a CD and throwing his remote control against the wall). He was still far less angry and aggressive than he had been prior to treatment, and it was heartening to hear him exclaim that he wanted to learn from his "slips." Harry denied any anger-related problems at work or in his per-

sonal life, adding that he and his fiancée were in the midst of planning their wedding. Harry agreed to resume relaxation and cognitive coping skills practice and meet with us periodically to help guard against increased anger and aggression during this stressful time in his life.

The later course of Harry's IED showed a similar pattern to that of other patients in our clinic. For this reason, it might be useful to implement a more gradual "fading" of treatment of IED that includes three to six booster sessions at 2-week to 1-month intervals.

Our last contact with Harry was a phone call after he returned from his honeymoon. He informed us that he and his new wife were doing well and that, although he still had occasional flare-ups, his hothead days were behind him, to the delight of Harry, his wife, his coworkers,...and garden gnomes everywhere.

DISCUSSION

Harry's care represents a positive outcome in the treatment of IED. Individually, either CBT or selective serotonin reuptake inhibitors (SSRIs) typically reduce aggression in patients with IED. Although the degree of improvement may be quite marked in many patients, many others continue to have impulsive-aggressive symptomatology, albeit at a noticeably reduced frequency and/or intensity. No studies have yet examined the efficacy of combined SSRI and CBT treatment for IED. Our clinical work has shown that patients can often show additional improvement in remaining impulsive-aggressive symptomatology when the second treatment modality is added. Even in the most successful cases, total elimination of aggressive acts for an extended period may be relatively rare.

Harry initially vocalized a preference for medication over CBT. In our experience, individuals are fairly evenly split in their preference for medication or psychotherapy. Not surprisingly, those who prefer psychotherapy often point to the time investment associated with CBT as a limiting factor, whereas those stating a preference for CBT report concerns about potential medication side effects, especially sexual side effects. As there is no data suggesting one modality is superior to the other, we typically employ the treatment modality the patient prefers first and then recommend the other modality, if warranted and acceptable, to the patient.

Positive outcomes like Harry's are not unusual in our practice. However, this is not to say that all of our IED patients benefit from CBT and/or SSRIs. For some patients, mood stabilizers may be beneficial as anti-

aggressive agents. A direct comparison of SSRIs to a mood stabilizer has not yet been performed, although such a study is ongoing in our research program at this time; the results of this study, however, may not be available for several years. Individuals with more limited cognitive abilities often do not respond as well to CBT. Though unknown, it is possible that other forms of psychotherapy would be more effective for these individuals. However, for the majority of IED patients CBT and SSRIs individually or in combination is an effective treatment.

REFERENCES

- Coccaro EF: Intermittent explosive disorder, in *Aggression: Psychiatric Assessment and Treatment*. Edited by Coccaro EF. New York, Marcel Dekker, 2003, pp 149–199
- Coccaro EF, Kavoussi RJ: Fluoxetine and impulsive aggressive behavior in personality disordered subjects. *Arch Gen Psychiatry* 54:1081–1088, 1997
- Coccaro EF, Kavoussi RJ, Berman ME, et al: Intermittent explosive disorder, revised: development, reliability, and validity of research criteria. *Compr Psychiatry* 39:368–376, 1998
- Coccaro EF, Posternak MA, Zimmerman M: Prevalence and features of intermittent explosive disorder in clinical setting. *J Clin Psychiatry* 66:1221–1227, 2005
- Deffenbacher JL, McKay M: *Overcoming Situational and General Anger: A Protocol for the Treatment of Anger Based on Relaxation, Cognitive Restructuring, and Coping Skills Training*. Oakland, CA, New Harbinger, 2000
- Felthous AR, Bryant G, Wingerter CB, et al: The diagnosis of intermittent explosive disorder in violent men. *Bull Am Acad Psychiatry Law* 19:71–79, 1991
- Galovski T, Blanchard EB: The effectiveness of a brief psychological intervention on court-referred and self-referred aggressive drivers. *Behav Res Ther* 40:1385–1402, 2002
- Mattes JA: Comparative effectiveness of carbamazepine and propranolol for rage outbursts. *J Neuropsychiatry Clin Neurosci* 2:159–164, 1990
- McCloskey MS, Noblett KL, Gollan JK, et al: The Efficacy of Group Cognitive Behavioral Therapy in Reducing Anger Among Patients with Intermittent Explosive Disorder: A Pilot Study. Poster presented at the 2004 annual meeting of the Association for the Advancement of Behavior Therapy, New Orleans, LA, November 2004

McElroy SL, Soutullo CA, Beckman DA, et al: DSM-IV intermittent explosive disorder: a report of 27 cases. *J Clin Psychiatry* 59:203-210, 1998

The Red and the Black

Integrated Treatment of Pathological Gambling

Eric Hollander, M.D.

Bernardo Dell'Osso, M.D.

Eric Hollander, M.D., is Professor of Psychiatry, Director of Clinical Psychiatry, Director of the Seaver and New York Autism Center of Excellence, and Director of the Compulsive, Impulsive, and Anxiety Disorders Program at the Mount Sinai School of Medicine in New York City. He has authored more than 200 scientific publications and several books in various research fields, including obsessive-compulsive spectrum disorder, autism spectrum disorders, social anxiety disorder, and impulse control disorders.

Bernardo Dell'Osso, M.D., is a Research Fellow at the Mount Sinai School of Medicine in New York City, where he is also a member of the Compulsive, Impulsive, and Anxiety Disorders Program. He is also a member of the Department of Psychiatry in the Department of Clinical Sciences Luigi Sacco of the University of Milan, Italy. He is author of seven scientific publications regarding the epidemiology of psychiatric disorders, including mood disorders, obsessive-compulsive spectrum disorders, autism spectrum disorders, and impulse control disorders.