Treating intermittent explosive disorder

Emerging data show medication and cognitive behavioral therapy may help some patients.

Under severe enough stress, any normally calm and collected person might become angry, even to the point of violence. But some people lose their temper repeatedly—tension mounts until there is an explosive release.

Since the early 1980s, this condition has been called intermittent explosive disorder (IED). It is characterized by disproportionate rage responses, leading to serious harm through violent words or deeds. By definition, the behavior can't be explained by another diagnosis (for example, antisocial or borderline personality disorder, attention deficit disorder, conduct disorder, substance abuse, or dementia).

IED is more common than experts initially believed, and it can be quite destructive. The National Comorbidity Survey Replication, a community survey by the National Institute of Mental Health, put the lifetime incidence in the 5% to 7% range and the current prevalence at 3% to 4%, depending on how the condition was defined. It also found that people with IED were often young and that the majority were male. In the severest cases (at least three rage attacks per year), a person with IED may have dozens of episodes over time, leading to injuries requiring medical attention or causing thousands of dollars in property damage.

The condition remains controversial, especially when it is diagnosed in an individual being held to account for violent actions. Epidemiological data is still limited, and there is broad overlap with many disorders that feature impulsive, aggressive behavior. There continue to be wide variations—from clinician to clinician—in how the diagnosis is made. Nonetheless, the cost to the perpetrators and their victims is so high that each new insight into the biology of this group of patients is of much more than passing interest.

In one controlled study (using strictly defined research criteria and evaluators who didn't know who had been diagnosed with IED), first-degree relatives of IED patients had a significantly elevated risk of IED. Several studies suggest that the disorder is associated with abnormal activity of the neurotransmitter serotonin in parts of the brain that play a role in regulating, even inhibiting, aggressive behavior. Impulsive aggression in general is associated with low serotonin activity as well as damage to the prefrontal cortex, a center of judgment and self-control. One study found that on some neuropsychological tests, people with IED performed similarly to patients who had suffered damage to the prefrontal cortex.

The biggest challenge for the field is that people who have trouble resisting their violent impulses, no matter what the cause, are not very likely to seek treatment. Many people with IED have had some psychiatric treatment, but a minority of them have been treated specifically for their impulsive rage attacks—fewer than 20% in two surveys. Those who do receive treatment often wait a decade or more after onset of symptoms to seek help, often *after* significant violence has occurred or because they are seeking treatment for a secondary disorder.

Research on drug treatment has been limited. A number of medications are known to reduce aggression and prevent rage outbursts, including antidepressants (namely selective serotonin reuptake inhibitors, or SSRIs), mood stabilizers (lithium and anticonvulsants), and antipsychotic drugs. In one study, impulsively aggressive patients who took the SSRI fluoxetine (Prozac) showed increased activity in the prefrontal cortex. A 2009 study of 100 patients found that those who took fluoxetine for 12 weeks experienced statistically significant reductions in impulsive aggressive behavior compared with those who took a placebo. Researchers cautioned that even though the effect appeared robust, fewer than half the patients taking fluoxetine achieved a full or partial remission.

Cognitive behavioral therapy (CBT) that combines cognitive restructuring, coping skills training, and relaxation training looks promising. A small randomized controlled trial by University of Chicago researchers compared group and individual CBT for the treatment of IED with a wait-list control group. After 12 weekly sessions, patients participating in either individual or group therapy were significantly less aggressive and angry, and less depressed, than those in the control group. Those who attended individual therapy sessions also reported an improvement in their overall quality of life. Three months later, the improvements persisted.

Given the relatively early onset of IED (age 13 in males and age 19 in females, on average, in one study), school-based violence prevention programs may help identify the condition in adolescents and spur its treatment.

Coccaro EF. "A Family History Study of Intermittent Explosive Disorder," *Journal of Psychiatric Research* (November 2010): Vol. 44, No. 15, pp. 1101–05.

Coccaro EF, et al. "A Double-Blind, Randomized, Placebo-Controlled Trial of Fluoxetine in Patients With Intermittent Explosive Disorder," *Journal of Clinical Psychiatry* (April 21, 2009): Vol. 70, No. 5, pp. 653–62.

Kessler RC, et al. "The Prevalence and Correlates of DSM-IV Intermittent Explosive Disorder in the National Comorbidity Survey Replication," *Archives of General Psychiatry* (June 2006): Vol. 63, No. 6, pp. 669–678.

McCloskey MS, et al. "Cognitive-Behavioral Therapy for Intermittent Explosive Disorder: A Pilot Randomized Clinical Trial," *Journal of Consulting and Clinical Psychology* (October 2008): Vol. 76, No. 5, pp. 876–86.

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