

Obsessive-Compulsive Disorder

Making a Difference Today

Is the stove turned off? Did I lock the door? While many people check, and double check, themselves, for some 3.3 million American adults — men and women alike—this type of thinking can become a distressing obsession. Compulsively, these people turn to rituals or repetitive behavior to ease the anxiety of their persistent thoughts.

Sufferers of obsessive-compulsive disorder, or OCD, typically recognize their thoughts or behavior as irrational and excessive, yet they will spend an hour or more every day checking the stove or washing, rearranging things in a certain order, hoarding, or repeating other actions. OCD interferes with a person's ability to concentrate, to function at work, to participate in social activities, and to maintain normal relationships and routines. In 1990, the disorder was estimated to cost the United States \$8.4 billion in social and economic losses.

Research Breakthroughs

Fortunately, government-funded research has led to some successful ways to treat OCD. Many scientists have helped develop a specific behavior therapy as a treatment for OCD after an initial report of its effectiveness in 1966. In this treatment, patients typically are exposed to the source of their anxiety—a dirty handle, for example—but prevented from washing or otherwise turning to their ritual compulsions, until the associated anxiety fades. This is considered the most effective psychological treatment yet developed and is preferred over medication as the initial treatment for children and for adults who can carry out the exercises.

Scientists funded by the National Institutes of Health (NIH) and others also have convincingly established the effectiveness of medications, called serotonin reuptake inhibitors, or SRIs, that maintain levels of serotonin, an important chemical messenger in the brain. Serotonin helps regulate a person's emotional state. About half a dozen of these medications are available to treat OCD, of which four have been approved by the Food and Drug Administration for children. (Some of these drugs, which are anti-depressants, have been linked to an increased risk of suicidal thinking and behavior in children. For more information, please go to <http://www.fda.gov/cder/drug/antidepressants/>.)

For many patients, medication and behavior therapy together is the best approach. Recent studies have indicated that SRI treatment and therapy combined may be more effective than either one alone. Researchers are also learning there may be a number of underlying conditions that contribute to different kinds of OCD, which may allow them to clarify a spectrum of disorder types, and the treatments that work most effectively for each.

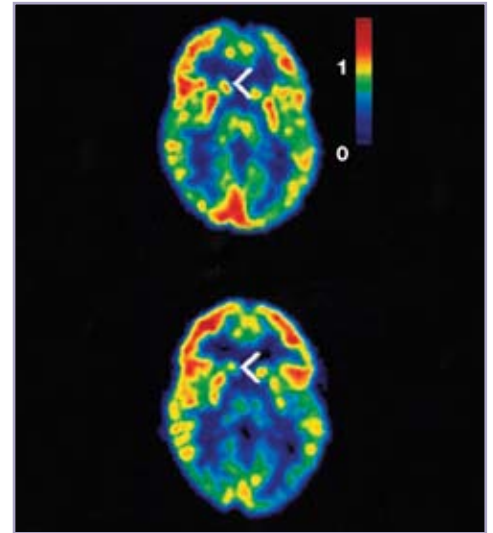
Continued Advances in Care

Medications and behavior therapy are considered the frontline treatments for OCD, yet for about half of sufferers, medication is not effective in the long term, and many OCD patients do not improve with a behavior therapy regimen.

Some scientists now are attempting to build on years of government-supported research exploring the ways we unlearn fear to develop enhanced therapy treatments. Others are testing electrical stimulation of the brain as an effective treatment or trying to clarify how OCD works in the brain with genetic studies and advanced brain imaging techniques.

With further funding for the NIH, researchers could develop new treatment options, giving relief to those who continue to suffer from the disorder.

For more information please e-mail brss@sfn.org.



The images above show the brain of an OCD patient before, above, and after treatment. In this classic imaging study, government-funded researchers were able to show that successful treatment of OCD normalizes activity in particular parts of the brain, helping to define the pathway through which OCD is thought to act. The arrowheads indicate the one area where activity changed consistently and where the amount of change correlated with the degree to which a patient's symptoms went away. It is in the basal ganglia, where sensory signals are processed and ultimately translated into behavior.

Continued funding for research could lead to:

- Treatments that enhance patients' capacity to unlearn their fears.
- Stimulation techniques that improve brain function.
- The identification of biological markers that could help predict what treatments would be most effective.



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Obsessive-Compulsive Disorder

Making a Difference Tomorrow

Effective treatments are now available for many people suffering from obsessive-compulsive disorder, or OCD. Yet in many cases a patient's condition persists, even after doctors have tried several kinds of treatment. The patient continues to experience irrational thoughts and to respond with excessive rituals that interfere with concentration, work, and relationships.

Did you know that OCD:

- Affects 3.3 million American adults
- Is equally common among men and women
- Cost nearly 6 percent of the total U.S. \$148 billion mental health bill in 1990.

With additional funding from the National Institutes of Health (NIH), scientists could develop better treatments for those who suffer from OCD.

Research Equals Hope for the Future

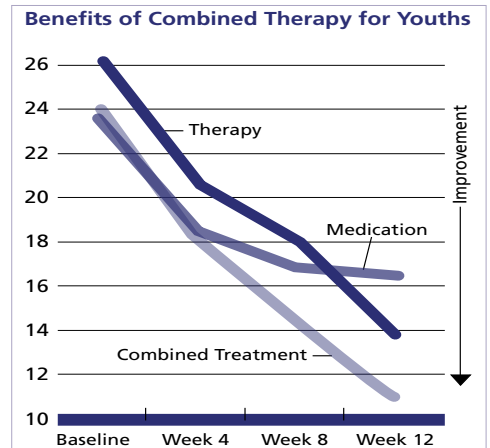
Already, research is leading to the development of new treatments. Some day, researchers may be able to turn to treatments that combine behavior therapy with drugs such as D-cycloserine, a compound that NIH-funded studies and others have shown facilitates learning in animals. Scientists think the compound could enhance the effect of the therapy, potentially accelerating the process by which patients learn to overcome their anxieties. One study found that the combination of therapy and low doses of D-cycloserine works faster to help patients with a fear of heights overcome their fears than therapy alone and may also help prevent relapses. A clinical trial for this approach as a treatment for obsessive-compulsive disorder is now underway.

Researchers are also pursuing the possibility of applying electrical currents or other stimulation to tiny areas of the brain to alter the activity of certain brain structures. Several small-scale studies have shown that stimulation of the brain can be an effective way to treat people for whom SRIs and behavior therapy do not work. NIH and others are currently sponsoring clinical trials for stimulation techniques.

Furthermore, scientists have been tracking down biological markers, which could clarify a genetic component to the disease, making it easier to make a diagnosis or to identify the likelihood that a patient will respond well to specific kinds of treatment. And brain imaging techniques have shown researchers distinctive patterns of brain activity in OCD—and how they change with treatment.

Other Diseases

Research suggests a link between OCD and movement disorders such as Huntington's disease, Parkinson's disease, and Tourette's syndrome. In fact, deep brain stimulation, recently approved by the Food and Drug Administration for treatment of OCD, was first developed as a treatment for Parkinson's disease. In addition, many OCD sufferers have other, coexisting mood or anxiety disorders. Further NIH funding in these areas as well will speed the conversion of basic knowledge into new treatments for many diverse disorders, improving the lives of many Americans.



Government-supported research is helping develop effective ways to treat OCD. In one recent NIH-funded study evaluating treatments for OCD patients 7–17 years old, researchers found that over a twelve-week period, patients' scores on a standard rating scale of the disorder's severity showed greater improvement (lower score) with a combined treatment of SRI and behavioral therapy than with either SRI medication or therapy alone.

Already research has led to:

- The identification of several medications that target the processing of serotonin in the brain and effectively treat OCD.
- The development of behavior therapy, considered the most effective psychotherapeutic treatment for the disorder.
- The classification of various subgroups of OCD patients, who may show differing responses to specific treatments.

For more information please e-mail brss@sfn.org.

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