

College basketball star Julian Swartz talks to *Current Science* about the emotional problem that sidelined him for a year.

Time Out!

By Darren Sechrist

Hours after his teammates had left for home, 18-year-old Julian Swartz would stand alone in his high school gym, draining three-pointer after three-pointer. He would make seven in a row, miss one, make another eight, miss one. Not until sinking ten treys in a row would he finally go home.

That kind of persistence made Swartz the star of his high school basketball team in Waukesha, Wis. From there, it

led him to the University of Wisconsin basketball team, which reached the final four of the NCAA tournament in 2000. It also led him to write these words in his journal:

"I cannot, nor anyone, take away the sadness, pain, and indescribable feelings I battle every second of every minute of every hour of every day."

Strange Thoughts

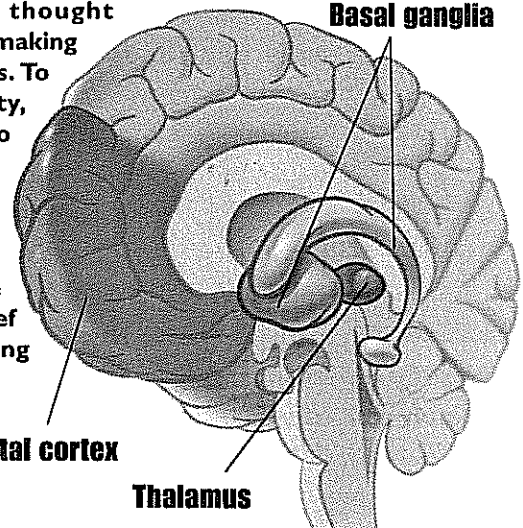
Swartz suffers from a condition called *obsessive-compulsive disorder* (OCD). People who have OCD are plagued by repeated disturbing thoughts. Such nagging, unwanted thoughts are called *obsessions*. In an effort to deal with those thoughts, many people with OCD perform certain tasks again and again. Such behaviors are called *compulsions*.

Swartz, now 21, experienced his first symptoms of OCD in the first grade. He would have repeated thoughts that something awful was going to happen to him or someone close to him. By eighth grade, Swartz's obsessions had led to compulsions. "As I grew up, I guess so did the OCD," Swartz told *Current Science*. Obsessed with germs, Swartz washed his hands until they were raw. Obsessed that he had left the stove on, Swartz got up many times each night to check it.

A Brain Short Circuit

Doctors believe that OCD is caused by some sort of malfunction in three areas of the brain: the *basal ganglia*, the *orbital frontal cortex*, and the *thalamus*. "These areas act as an executive secretary, sorting out incoming information and telling the rest of the brain which messages are important," said Fred Penzel, a medical expert on OCD and the author of *Obsessive-Compulsive Disorders: A Complete Guide to Getting Well and Staying Well*.

In people with OCD, the executive secretary fails to do its job. A thought like "My hands are dirty and have germs on them that might make me or someone else sick" is given as much importance as "The house is on fire!" Instead of popping up and then disappearing, as it would in most people, the thought stays in the brain, making the person anxious. To relieve that anxiety, the person turns to compulsions, such as washing one's hands repeatedly. However, the compulsions provide only temporary relief before the disturbing thought returns.



A Question of Perfection

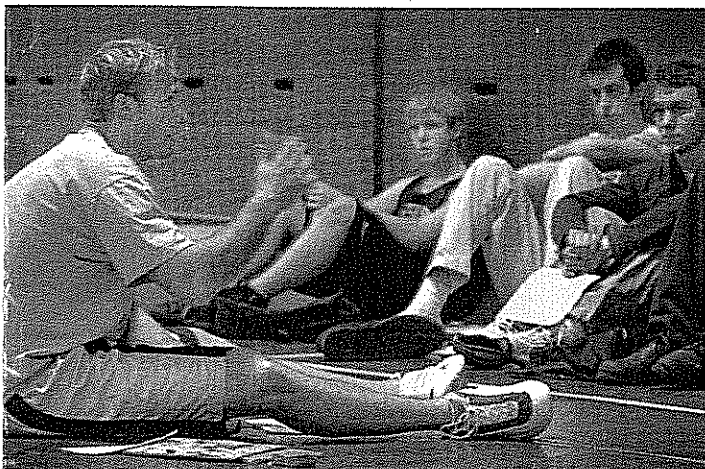
Two more years passed before Swartz sought professional help. A therapist helped him by using *behavior therapy*.

Behavior therapy for OCD involves a technique called *exposure and response prevention*. Patients are exposed to situations that trigger their obsessions and are then prevented from performing their usual compulsions. For example, a person who has an unreasonable fear of germs might be asked to handle money without washing hands afterward. After repeated exposure to the money, the patient realizes that nothing bad has happened.

Because Swartz was obsessed with being perfect in his schoolwork, he was allowed to do homework for only a certain length of time each night. Because he was obsessed with germs, Swartz was told to go as long as he could without washing his hands.

The therapy helped Swartz get some of his obsessions under control. However, a new obsession had emerged. Swartz felt he had to practice basketball constantly or face unbearable shame and embarrassment.

In his junior and senior years of high school, Swartz's obsession with basketball ruled his life. At the University of Wisconsin, the pressures of college life pushed him over the edge. He wrote in his journal about the relief that he imagined suicide would bring him. Finally, realizing that his life had spun out of control, he quit college after freshman year.



Julian Swartz describes his condition to a group of students.

Getting Help

Back home, Swartz sought professional help again. This time, Swartz's doctor recommended continuing behavior therapy with a drug program.

The drugs most often used to treat OCD are antidepressants, such as Prozac, Zoloft, Paxil, and Luvox, which regulate *neurotransmitters* in the brain. Neurotransmitters are chemicals that carry messages between *neurons* (nerve cells). The antidepressants prescribed for people who have OCD increase the concentration of the neurotransmitter *serotonin* in certain areas of the brain. (See "A Brain Short Circuit.") That allows the brain to think an unpleasant thought, such as "My hands are dirty," and then move on, rather than dwell on the thought.

Comeback

Swartz takes an antidepressant every day but has discontinued behavior therapy. He says his religious beliefs and talking to other people about OCD have been more effective than behavior therapy for him.

This month, Swartz returned to the University of Wisconsin, planning to play basketball again. "I'm aware that OCD is chronic, and I know very well that there will be relapses," he said. "But I'm very excited to attack those. What I've overcome so far has been so much bigger than what I will face in the future." 