

A girl repeatedly jabs her finger up her nose: Compulsion or self-injury?

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How would you handle this case?

Answer the **challenge questions** throughout this article

A, age 6, repeatedly rams her finger into her nose, causing profuse bleeding. She has been in psychotherapy for a year, but the behavior is becoming more frequent. How would you treat her?

CASE Anxious and self-injurious

A, age 6, is forcibly inserting her finger into her nose repeatedly until she bleeds profusely, as many as 20 times per day. She is not nose-picking but is jabbing her finger into her nose as far as possible in a repetitive ramming motion. Less frequently, she inserts her finger into her vagina, resulting in chronic urinary tract infections (UTIs). She has bedtime checking rituals; worries that her parents will die; has a fear of vomiting to the point where she stopped eating normally and lost 5 lb in 6 months; intense fear of storms; refusal to use public bathrooms; and involuntary throat clearing, facial grimacing, and lip twitches.

A's symptoms began at age 3. There is no history of physical or sexual abuse. She does well in school, but these behaviors have had a significant impact on her social functioning. She is not taking any medications and has been in weekly cognitive-behavioral therapy (CBT) for the last year. A has had several UTIs but otherwise is physically healthy.

Which diagnosis best describes A's condition?

- a) non-suicidal self-injury (NSSI)
- b) generalized anxiety disorder (GAD)
- c) obsessive-compulsive disorder (OCD)
- d) Tourette's disorder (TD)

The authors' observations

A is causing herself to bleed and says she wants to stop this behavior. Onset of NSSI typically is age 12 to 14 and could be accompanied by traits of cluster B personality disorders.¹ In A's case, her age and absence of any stated desire to relieve stress or intense negative affective states rules out NSSI.

Because A has multiple and frequent fears, worries, and anxieties that have been present for years and have caused significant functional impairment, a diagnosis of GAD is warranted. Because she has had both motor and vocal tics for more than 1 year, she also meets diagnostic criteria for TD (*Table 1*).

In young children, OCD manifests primarily with compulsive behavior, such as excessive hand washing, counting, and ordering, that interferes with functioning. Although A has bedtime checking rituals, she has no significant functional impairment from these rituals alone. A's finger-insertion behavior could be interpreted as



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Table 1

DSM-5 criteria for Tourette's disorder and obsessive-compulsive disorder

Tourette's disorder	Obsessive-compulsive disorder
(a) Multiple motor and vocal tics	(a) Presence of obsessions, compulsions, or both
(b) Waxing and waning course of ≥ 1 year	(b) Intrusive, unwanted, recurrent thoughts cause marked anxiety or distress
(c) Onset before age 18	(c) Neutralization of obsessions attempted via repetitive behaviors or compulsions
	(d) Obsessions/compulsions are time-consuming, cause distress and/or functional impairment

Source: Adapted from: Diagnostic and statistical manual of mental disorders, 5th ed. Washington, DC: American Psychiatric Association; 2013

a complex motor tic or as a compulsion, in which case impairment was significant enough to justify a diagnosis of OCD.

Many individuals with OCD report the need to engage in compulsive behavior to decrease anxiety or until they experience a “just right” feeling.² However, neither A nor her mother reported the need for the “just right” feeling. The child recognized the urge to put her finger in her nose and did experience relief of anxiety after drawing blood. Although A said that she was unable to control her hands, she was observed frequently touching the side of her nose in an attempt to avoid inserting her finger in her nose.

Compulsive behavior that results in self-injury typically is not seen in OCD except in children with severe neurologic complications, low intellectual functioning, psychosis, or autism.³

It often is difficult to determine if complex motor or vocal tics are compulsions (Table 2, page 62). Indeed, the same biologic mechanisms are thought to be implicated in TD and OCD.⁴ A significant percentage of children with OCD have tics, and patients often report that they are unable to distinguish between compulsions and complex tics.⁵ Therefore, we thought that a reasonable differential included both TD and OCD, but more careful assessment over time was required.

Treatment options

A has been receiving CBT for more than 1 year but her symptoms were worsening, which prompted her parents to seek evaluation in our clinic. Because of the level of interference with daily functioning and significant distress, our priority was developing a treatment plan that has the best chance of quickly reducing symptom severity and frequency. The results of the large-scale Pediatric OCD Treatment Study (POTS), which evaluated children age 7 to 17, and the Child/Adolescent Multimodal Anxiety Study, which evaluated children age <12, indicated that the combination of CBT with a selective serotonin reuptake inhibitor (SSRI) reduced OCD symptoms more than either modality alone.^{6,7} Considerations for using SSRIs in this age group include:

- the risk of behavioral activation
- poor tolerability
- lack of an evidence base for dosage optimization.

The American Academy of Child and Adolescent Psychiatry's Preschool Psychopharmacology Working Group's guidelines for treating anxiety in preschoolers state that pharmacotherapeutic intervention can be considered when symptoms are intolerable and adequate psychotherapy interventions have been tried.⁸ In A's case, she had been receiving

Clinical Point

Many children with OCD have tics, and patients often report that they are unable to distinguish between compulsions and complex tics

Clinical Point

Including parents when treating anxious children—especially young children—can facilitate gains and hasten positive outcomes

Table 2

A guide to differentiating tics from compulsions

Tics	Compulsions
Is symptom preceded by a physical urge?	Is symptom caused by need for anxiety reduction?
If the child is not allowed to perform the tic, will physical tension result?	If the child is not allowed to perform symptom, will anxiety or stress increase?
Does the child's history indicate relative absence of anxiety?	Does the child's history suggest clear-cut obsessions and compulsions as well as anxiety?

CBT for a year without improvement in symptoms; therefore, initiating medication was indicated, as well as an examination of therapeutic modalities being used.

TREATMENT Next steps

A is started on liquid fluoxetine, 20 mg/5 mL, 1 mL (4 mg) daily, because of her inability to swallow pills and her young age. According to her mother, a week later A is sleeping better and seems happier. The entire family seems less stressed. During the third week, A successfully goes on a camping trip with her family and is starting to eat better. Her finger-in-nose insertions still are occurring but, according to her mother, she is not putting her finger in her vagina. In session, she is not observed putting her finger in her nose or touching her nose, which she had done frequently during the initial evaluation. Fluoxetine seems to be well tolerated and the dosage is increased to 2 mL (8 mg) per day.

Although A has weekly scheduled appointments, she is not brought in again until a month later. At that time her mother reports an approximately 40% improvement in overall symptoms, including less frequent nose-insertion behaviors.

What type of psychotherapy would you employ for A?

- CBT
- behavioral therapy
- habit reversal training (HRT)
- pharmacotherapy alone

The authors' observations

The treatment team planned to begin psychotherapy after A showed a decrease in anxiety and frequency of problem behaviors to a point where she could benefit. Evidence-based treatment for compulsions and tics is CBT and/or HRT.⁹ However, clinicians frequently encounter special challenges in helping young children (age 5 to 8) who have OCD. Factors such as family functioning, parental accommodation to the child's symptoms, and the child's ability to understand symptoms, exposure and response prevention, and willingness to tolerate discomfort should be considered if treatment is to be effective.

Research has shown that including parents when treating anxious children—especially young children—can facilitate gains and hasten positive outcomes.^{10,11} The POTS Jr study showed the relative efficacy of a family-based CBT model for young children with OCD that emphasizes consistent involvement of parents in all phases of treatment.¹² In this case, A and her mother were seen together for psychotherapy, with an initial focus on learning more about the antecedents and consequences of the child's behaviors.

OUTCOME Inconsistencies

Treatment was initiated during the summer. With the upcoming start of the school year, A begins to complain of daily headache, stomachache, and anxiety related to the start of school. Fluoxetine is increased to 3 mL/d

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Related Resources

- Lewin AB, Piacentini J. Evidenced-based assessment of child obsessive compulsive disorder: recommendations for clinical practice and treatment research. *Child Youth Care Forum*. 2010;39(2):73-89.
- Martino D, Leckman JF, eds. *Tourette syndrome*. New York, NY: Oxford University Press; 2013.

Drug Brand Name

Fluoxetine - Prozac

Clinical Point

Parental anxiety is correlated with the child's anxiety and can moderate treatment outcome

(12 mg/d). After school starts, her mother stops going to work and begins attending school daily with A to relieve both her and the child's anxiety.

The following week, the mother pages the psychiatrist, hysterical and crying because she thought the child was "pulling her hair out so much she looks like a cancer survivor." Both parents blame the increase in fluoxetine for the heightened anxiety. At the next visit, the treatment team does not notice any evidence of unusual hair loss on the child. A has not attended school for several weeks, and her mother has not returned to work. Her parents report that the finger-to-nose behavior has increased, although it is not observed during the session, and fluoxetine is tapered as her parents requested.

At the next session, her mother notes a significant increase in finger-to-nose behavior and requests that the child be put back on fluoxetine, saying, "I would give anything to have the child I had on Prozac back."

How would you proceed?

- a) confront the mother's inconsistencies
- b) restart fluoxetine and continue psychotherapy
- c) refer A to another clinic or therapist
- d) refer A to inpatient care

The authors' observations

The treatment team identified several barriers to successful treatment in our clinic. The level of functional interference caused by A's symptoms indicated sessions more often than once a week, but the parents felt that the distance from our clinic to their home made this too difficult. The mother's anxiety and obvious distress over her daughter's symptoms precluded working closely with child. Parental anxiety is correlated with the child's anxiety and can moderate treatment outcome.¹¹ In response to the suffering of their anxious children, especially young ones, parents often will become anxious and accommodate to the child's symptoms, which we strongly suspected was happening with A's mother.

Parents' concerns about A's symptoms and response to treatment were addressed during a family meeting. Recognizing that the level of care needed by this family was higher than could be provided in our clinic, we recommended referral to a specialty clinic. A was brought to another clinic, and treatment at our facility was terminated.

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Bottom Line

Distinguishing tics from compulsions in young children is difficult. The combination of cognitive-behavioral therapy (CBT) and psychotropic medication is a first-line treatment for children with anxiety disorders. Parents are an integral part of treatment of young children, and therefore a behavioral approach involving parents, instead of traditional CBT, is more likely to be beneficial.

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