Family-Based Treatment of Pediatric Obsessive-Compulsive Disorder

Clinical Considerations and Application

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KEYWORDS

• Family-based treatment • Obsessive-compulsive disorder • Family accommodation • Cognitive-behavioral family-based treatment • Pediatric OCD

KEY POINTS

- Pediatric obsessive-compulsive disorder (OCD) can be effectively treated with a family-based approach.
- Family-based cognitive-behavioral therapy works by providing coping strategies, parent training practices for relevant caregivers, routine implementation of exposure and response prevention, and systematic reduction of OCD family accommodation.
- Therapists first model then coach parents in more adaptive responses to OCD symptoms, which often builds skills on how to manage their own anxiety and behavioral responses to OCD.
- Contextual family processes, including family accommodation, family dysfunction, family problem solving, and communication styles, are identified and addressed throughout treatment.
- Therapeutic goals include increased flexibility for individual and family behavioral responses to OCD symptoms.
- Humor and creativity can be extremely beneficial.

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Abbreviations

ADIS	Anxiety Disorders Interview Schedule
CBT	Cognitive-behavioral therapy
CY-BOCS	Children's Yale-Brown Obsessive Compulsive Scale
ERP	Exposure and response prevention
FB-CBT	Family-based cognitive-behavioral therapy
FIT	Family inclusive treatment
OCD	Obsessive-compulsive disorder
PFIT	Positive family interaction therapy
SRI	Serotonin reuptake inhibitor

OVERVIEW: NATURE OF THE PROBLEM

Obsessive-compulsive disorder (OCD) is a serious pediatric psychological condition, with childhood prevalence estimates between 1% and 3%.[1–4] The time-consuming and distressing nature of obsessions and compulsions observed in the context of OCD often results in significant disruption in school, social, and family functioning.[5,6] The familial context is an especially important consideration of OCD in children because family factors affect both the development and maintenance of OCD, often with deleterious effects on family relationships and interactions.[7] Family members play an integral part in the treatment of pediatric OCD, including helping children follow through with treatment tasks, extricating themselves from OCD rituals, and broadening family-based behavioral responses to OCD.[7] Indeed, both research and clinical experience indicate that to effectively treat OCD in children and adolescents, families must be involved.

A review of the current literature (**Table 1**, see later discussion) indicates that treatments with family-based components demonstrate large effect sizes. In fact, the more family-based intervention used the more improvement in symptoms and functioning.[22] This is unsurprising given that nearly all families engage in accommodation of OCD.[23–25] Accommodation is a family-based phenomenon that warrants family-based intervention to curb the negative impact on symptoms and reduce distress.

This article aims to describe the clinical application of family-based treatment of pediatric OCD. Three broad areas are discussed: (1) family factors associated with OCD in youth, (2) the current family-based treatment literature for pediatric OCD, and (3) clinical application of family-based treatment in pediatric OCD.

Family and Contextual Factors Observed in Pediatric Obsessive-Compulsive Disorder

Several contextual and family process factors have been found to contribute to the development and maintenance of anxiety and OCD symptoms.

Family accommodation

Family accommodation is characterized by actions taken by family members to either avoid OCD-related triggers or facilitate completion of compulsions. Accommodation can be achieved by actively participating in rituals, offering reassurance, or attempting to decrease the child's anxiety by yielding other family priorities to OCD demands.[25,26] Family engagement in OCD accommodation is strikingly ubiquitous, with some studies reporting more than 97% of reporters acknowledging accommodation, most occurring on a daily basis.[23–25] Despite being well-intentioned and seemingly pragmatic, family accommodation can exacerbate symptoms of OCD by reinforcing compulsive behaviors.

Table 1
Empirical studies evaluating family-based treatment of pediatric obsessive-compulsive disorder

Study	Number of Subjects	Mean Age (Range)	Design	Family-Based Intervention Elements	% Parent Involvement	Primary Outcome Measures	Results	Effect Size
Waters et al,[8] 2001	7	Not reported (10–13 y)	Open: child CBT + parent skills training + family review	PE, reduction of OCD involvement, family support of ERP, increase problem solving	50	• ADIS • CY-BOCS • NIMH GOCS • FAS • M-FAD	• 86% no longer met criteria • 60% reduction in CY-BOCS • 60% reduction in NIMH GOCS • Reduction in family accommodation • No change in family functioning	Sample too small
Grunes et al,[9] 2001	28	28.5 y (8–67 y)	Randomized: ERP vs ERP + FI	Family member in 8-wk FI group (90 min): PE, cotherapist, support, coping skills	~67	• CY-BOCS	• FI-group: 31% reduction in obsessions, 25% reduction in compulsions • ERP-only group: 7% reduction obsessions, 11% reduction compulsions	FI-group: 1.1^{+} (Y-BOCS)
Freeman et al,[10] 2003	4	6.75 y (4–11 y)	Open pilot: FB-CBT	PE, parent training, family treatment, ERP	100	• CY-BOCS	• 88% reduction in symptoms ○ Pretreatment mean = 26 (*SD* = 4) ○ Posttreatment mean = 3 (*SD* = 2)	Sample too small

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Study	Number of Subjects	Mean Age (Range)	Design	Family-Based Intervention Elements	% Parent Involvement	Primary Outcome Measures	Results	Effect Size
Barrett et al,[11] 2005 (12-mo, 18-mo follow-up Barrett et al,[12] 2004)	48	13.85 y (7–17 y)	Individual vs group CBFT	See Barrett et al,[12] 2004	~45	• ADIS (diagnosis-free) • CY-BOCS + NIMH GOCS • Predictors of long-term outcomes	• 70% individual CBFT, 70%, group CBFT, 84% (no significant difference) • Gains maintained 12 mo, 18 mo, no significant differences between groups • Higher pretreatment severity and higher family dysfunction predicted worse long-term outcomes	2.84^{+} (CY-BOCS) 2.76^{+} (CY-BOCS)
Martin & Thienemann,[13] 2005	11	11.3 y (8–14 y)	Open: group CBT – Child, parent groups met concurrently then convened	Parent-group mirrored child group (adapted from March & Mulle,[14] 1998)	60	• CY-BOCS • CGI-I • GOCS • COIS-R	• 25% improvement • Ratings "much improved" • Ratings from clinical to subclinical • 44% total functional improvement	0.98

Storch et al,[15] 2007	40	13.3 y (7–17 y)	Randomized comparison: Weekly vs intensive FB-CBT	At least 1 parent attended all sessions	100	• CY-BOCS • CGI-S • CGI-I • Remission status (no diagnosis via ADIS and CY-BOCS≤10)	• Significant improvement, no difference between groups • Intensive less impaired immediate posttreatment, effect did not hold at follow-up • No significant difference in response rate 90% intensive, 65% weekly • No significant differences at posttherapy or follow-up ○ Posttherapy 75% intensive, 50% weekly ○ Follow-up 72% intensive, 77% weekly	Intensive: 2.72 (CY-BOCS) Weekly: 1.73 (CY-BOCS)

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Study	Number of Subjects	Mean Age (Range)	Design	Family-Based Intervention Elements	% Parent Involvement	Primary Outcome Measures	Results	Effect Size
Freeman et al,[16] 2008	42	7.11 y (4–8 y)	Randomized comparison: FB-CBT or FB-RT	PE, parent training, ERP, family treatment	100	• CY-BOCS (total score) • CY-BOCS (remission≤12) • CGI-I (remission: very much or much improved)	• ITT: no significant difference but CBT moderate effect size (d = 0.53) • Completer: CBT 69%, RT 20% • ITT: CBT 50%, RT 20% • Completer: CBT 69%, RT 40% (n.s.) • ITT: CBT: 50%, RT 40% (n.s.)	0.53 (FB-CBT over FB-RT)
O'Leary et al,[17] 2009 (7-y follow-up Barrett et al,[12] 2004)	38	18.4 y (13–24 y)	Individual vs group CBFT	See Barrett et al,[12] 2004	~45	• ADIS (diagnosis-free) • CY-BOCS + NIMH GOCS	• Individual CBFT 79%, group CBFT 95% (no significant difference) • Gains maintained at 7-y (most without interim treatment)	3.26+ (CY-BOCS)
Storch et al,[48] 2010	30	13.4 y (7–19 y)	Open: Intensive FB-CBT (medication nonresponders)	POTS CBT adapted for parent attendance	100	• CY-BOCS • CY-BOCS (clinical improvement: 30% reduction) • Remission: ADIS-IV≤3, CY-BOCS<10	• 54% reduction in symptoms • 80% participants clinically improved • 57% participants remission posttreatment	2.37 (CY-BOCS) 2.91 (CGI-S) 0.75 (COIS-P) 0.72 (COIS-C)

Peris & Piacentini,[42] 2013	20	12.5 y (8–17 y)	Pilot Randomized: Individual CBT vs PFIT (12 individual CBT + 6 family sessions)	PFIT: addressed familial blame or conflict, enhanced family cohesion, emotion regulation, problem-solving	ST ~ 30 PFIT ~ 33	• CGI-I (responder:<3) • CY-BOCS (remission≤10)	• ST 40%, PFIT 70% (d = 0.65) ○ Maintained 3-mo follow-up • ST 20%, PFIT 50% • PFIT: decreased accommodation, blame, family conflict	0.65 (CYBOCS) favoring PFIT
Barrett et al,[12] 2004	77	10.75 y (individual CBFT) 12.9 y (group CBFT) 11.75 y (waitlist) (7–17 y)	RCT: individual CBFT, group CBFT, or waitlist	PE, problem-solving skills, strategies to reduce involvement in child's symptoms, family support of ERP	~45	• ADIS (diagnosis-free) • CY-BOCS • NIMH GOCS	• 88% individual CBFT, 76% group CBFT, 22% waitlist • 65% reduction individual CBFT, 61% group CBFT, both significantly better than waitlist (0% reduction) • 60% decrease individual CBFT, 63% group CBFT, both significantly better than waitlist (0% decrease)	2.76 (CY-BOCS)

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Study	Number of Subjects	Mean Age (Range)	Design	Family-Based Intervention Elements	% Parent Involvement	Primary Outcome Measures	Results	Effect Size
Piacentini et al,[19] 2011	71	12.2 y (8–17 y)	RCT (70:30): family CBT vs PRT	Parents attended full sessions 1 and 2, final 30 min of remaining: PE, contingency management, disengage from OCD behaviors, developmentally appropriate FI, relapse prevention, ERP	~50	• CGI-I (responder:<3) • CY-BOCS • COIS-R • FAS	• ITT analysis: FCBT 57.1% vs PRT 27.3% • Completer: FCBT 68.3% vs PRT 35.3% • FCBT 46.2% reduction, PRT 32% reduction (n.s. but effect size d = 0.40) • FCBT greater in reducing severity, child functional status; marginally significant for greater reduction in family accommodation of sx • FAS declined for FCBT, not PRT (d = 0.42) ○ Reduced accommodation temporally preceded CY-BOCS improvement	FCBT: 2.37 (CYBOCS); 0.81 (COIS-RC); 1.01 (COIS-RP); 0.78 (FAS)

Reynolds et al,[20] 2013	50	14.5 y (12–17 y)	Randomized comparison: individual CBT vs parent-enhanced CBT	PE, accommodation, building hierarchy, behavioral experiments, rewarding progress	Individual CBT ~ 21 PE-CBT: 100	• CY-BOCS (response≤14)	• Individual CBT 44%, PE-CBT: 48%, difference n.s. ○ Both high- and low-parental involvement effective ○ Parent-enhanced CBT may be associated with significantly larger reductions in anxiety	1.45 I-CBT 1.27 PE-CBT
(POTS Jr) Freeman et al,[18] 2014	127	7.2 y (5–8 y)	RCT: FB-CBT vs FB-RT	PE, parent training, ERP, family treatment	100	• CY-BOCS • CGI-I • COIS-R	• FB-CBT superior to FB-RT, d = 0.84 • FB-CBT (72% responders) superior to FB-RT (41% responders), d = 0.31 • FB-CBT superior to FB-RT, d = 0.42	0.84 FB-CBT
Lewin et al,[21] 2014	31	5.8 y (3–8 y)	RCT: FB-ERP vs TAU	PE, parent tools (reduce accommodation, rewards, modeling), ERP, relapse and treatment maintenance	100	• CGI-I (responders much or very much improved) • CGI-S (remission≤mild) • CY-BOCS (% reduction) • CY-BOCS (remission≤12)	• FB-ERP 65%, TAU 7% • FB-ERP 35.2%, TAU 0% • FB-ERP 59% reduction, TAU 3% increase • FB-ERP 59%, TAU 0%	1.69 in favor of FB-ERP

[+] Post-treatment effect size calculations: Within group treatment effect size was calculated based on means, standard deviations for those studies without reported effect sizes; studies were required to have at least 10 subjects for calculation. A weighted average of effect size and n were utilized for Barrett et al., 2004 and follow up studies given two family treatment groups.

Abbreviations: ADIS, anxiety disorders interview schedule; CBFT, cognitive-behavioral family therapy; CGI, clinical global impression; CGI-I, clinical global impression–improvement; CGI-S, clinical global impression–severity; COIS, child OCD impact scale; COIS-C, child OCD impact scale-child report; COIS-RC, child OCD impact scale revised–child report; COIS-RP, child OCD impact scale revised–parent report; CY-BOCS, children's Yale-Brown obsessive compulsive scale; ERP, exposure and response prevention; FAS, family accommodation scale; FB-CBT, family-based cognitive-behavioral therapy; FB-RT, family based relaxation treatment; FCBT, family CBT; FI, family involvement; ITT, intent to treat; M-FAD, McMaster family assessment device; NIMH GOCS, National Institute of Mental Health Global Obsessive Compulsive Scale; PE, psychoeducation; PFIT, positive family interaction therapy; POTS, pediatric obsessive-compulsive disorder treatment study; PRT, psychoeducation-relaxation training; RCT, randomized controlled trial; ST, standard treatment of individual CBT; TAU, treatment as usual.

Family accommodation is linked to OCD severity as well as treatment outcomes. Higher levels of family accommodation mediate the relationship between the severity of symptoms and parent-rated functional impairment.[25] Additionally, those children with higher baseline levels of family accommodation tend to fare worse across treatments[27] even when controlling for baseline severity.[28] Adjunctive family-based treatment aimed specifically to reduce family accommodation has recently been shown to improve and accelerate treatment response in adults,[29] highlighting accommodation as an important intervention target.

Family functioning

Because children exist within the context of the family system, how family members interact with each other in the presence of stressors is an important consideration when treating pediatric OCD. For example, OCD youth in families that have an antagonistic response style[30] or respond with critical comments and rejection[28] typically exhibit more severe symptoms and lower overall functioning. Families with higher conflict also have more difficulty disengaging from OCD rituals and accommodation patterns.[26] Higher levels of family dysfunction have also been linked to both poorer treatment response[31,32] and worse long-term outcomes.[11]

In families with a child with OCD, or anxiety in general, parent–child interactions tend to be characterized by lower overall warmth than nonanxious parent–child dyads. Parents of children with OCD tend to display less confidence in their child's abilities, engage in less positive problem solving, and are less likely to promote independence.[33] Parents of anxious youth globally tend to intervene and retain control over problem-solving tasks[34] and provide more limited opportunities for child-directed control.[35]

Family history and psychopathology

Parents of children who are anxious tend to also have a history of anxiety. Remarkably, youth of an anxious parent are between 5 to 7 times more likely to have an anxiety disorder than children of nonanxious parents.[36,37] Furthermore, family history of OCD is linked to smaller effect sizes across treatment modalities as well as dramatic attenuation of cognitive-behavioral therapy (CBT) response unless augmented with medication.[27] Parents with a history of OCD may have an especially difficult time disengaging from accommodation or engaging in exposure and response prevention (ERP).

Empirical Support for Family-Based Intervention in Pediatric Obsessive-Compulsive Disorder

At present, CBT including ERP as a monotherapy or in combination with serotonin reuptake inhibitors (SRIs) is considered to be the superior treatment approach[38] and yields a large pooled effect size across clinical trials.[39] However, given that half the children and adolescents with OCD do not respond to ERP alone,[38,40] ways to improve treatment outcomes are needed.

A recent meta-analysis investigated the overall effect of family inclusive treatment (FIT) on outcomes in OCD.[22] Based on 29 studies, FIT had a large effect on both symptom reduction and functioning, across a wide range of formats and level of family involvement. Importantly, the sole moderator of treatment impact on symptom reduction was the number of family-based sessions, with more sessions related to more favorable outcomes.

Initial open-label studies showed that family-based treatment could be successfully implemented and obtain significant reductions in symptoms and family accommodation, regardless of durational format (weekly vs intensive; see **Table 1**). More recently,

5 randomized controlled trials (RCTs) involving family-based CBT (FB-CBT) indicate large effects on symptom reduction and functional improvement in youth with OCD when compared with community-based treatment, including a study demonstrating robust changes 7 years after treatment (see **Table 1**).

Family-based approaches tend to converge on several common treatment elements. These include provision of psychoeducation to the parents and child, orientation to parent skills (eg, tolerance of personal distress, differential attention, modeling, scaffolding the child's autonomy when engaging in skills), problem solving, establishing effective reward systems, addressing family process elements that disrupt therapeutic progress (eg, family accommodation, parental negativity, family communication), and discussion of relapse prevention.[41] See later discussion in the context of clinical application.

Positive family interaction therapy (PFIT) is another form of family-based treatment that has been evaluated as an adjunct to individual child CBT. PFIT emphasizes skills that address family-level dynamics and processes known to interfere with OCD treatment response.[42] In a preliminary trial, families with high levels of blame, conflict, and poor cohesion were randomized to receive either standard individual CBT or CBT plus 6 sessions of PFIT.[42] Although both groups evidenced symptom improvement, a weighted mean effect size difference of 0.65 favored the PFIT condition. This study highlights that, in complicated cases of pediatric OCD with high levels of family dysfunction, targeted family-based interventions are superior to CBT with standard of care elements (eg, ERP).

The authors' FB-CBT approach is described below in detail, including evaluation procedures, treatment goals, and therapeutic intervention techniques.[18] This treatment integrates elements of biological, developmental, learning, and family dynamic models.[10,14] In addition, involving additional therapeutic techniques from other empirically-based treatments (eg, mindfulness-based strategies, motivational interviewing) can be beneficial in promoting treatment engagement. The authors' FB-CBT approach is described below in detail, including evaluation procedures, treatment goals, and therapeutic intervention techniques.

PATIENT EVALUATION OVERVIEW

Treatment of OCD begins with a thorough assessment of symptoms, degree of interference, and functional impairment. In the case of children and adolescents, evaluation of family-level factors (eg, accommodation, family distress, communications skills) is also essential. Generally speaking, the authors use the Children's Yale-Brown Obsessive Compulsive Scale (CY-BOCS) and the Anxiety Disorders Interview Schedule (ADIS) to assess OCD symptoms and comorbid diagnoses. However, we commonly use several additional assessment tools to screen for comorbidity rule-outs, gather additional information about functional impairment, and further assess family dynamics (**Table 2**).

The assessment process focuses on whether symptoms are developmentally normative and on the level of involvement of parents, siblings, teachers, and friends in OCD behaviors. Furthermore, a careful understanding of the child's core fears and family accommodation will help pinpoint key considerations for treatment (eg, particular exposure targets, needed family communication skills).

TREATMENT GOALS

Treatment of OCD includes several goals that facilitate improvement in symptoms and functioning, including reduction of family accommodation of OCD, enhancing

Table 2
Typical obsessive-compulsive disorder assessment measures

Measure	Description
Children's Yale-Brown Obsessive Compulsive Scale (CY-BOCS)	Semistructured assessment of symptoms, severity
Family Accommodation Scale (FAS)	13-item questionnaire of family involvement in OCD rituals
Child OCD Impact Scale (COIS)	56-item self- or parent-report of functional impact of OCD across psychosocial domains
Anxiety Disorders Interview Schedule for Children (ADIS-C)	Structured assessment of DSM-IV childhood anxiety and comorbid disorders
Multidimensional Anxiety Scale for Children (MASC)	39-item self-report of anxiety symptoms
Children's Depression Inventory (CDI)	27-item self-report of depressive symptoms
Additional Measures	
Family Assessment Measure III (FAM-III)	50-item self-report of family relationships and interactions
Kiddie Schedule for Affective Disorders and Schizophrenia for school-aged children: Present and Lifetime (K-SADS-P/L)	Semistructured assessment across range of DSM-IV criteria, particularly useful for autism-spectrum disorders
Yale Global Tic Severity Scale (YGTSS)	Semistructured assessment of motor/vocal tics, severity

Abbreviation: DSM-IV, Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition.
Adapted from Sapyta JJ, Freeman J, Franklin ME, et al. Obsessive compulsive disorder. Cognitive-behavior therapy for children and adolescents. Washington, DC: American Psychiatric Publishing; 2012. p. 305.

tolerance to OCD triggers via ERP, and increased flexibility through learning and implementing new coping strategies. Furthermore, family support of the overall treatment model is integral, ranging from a role as a cotherapist in the case of younger children, to helping initiate and carry out ERP tasks, to increasing functional family communication skills. Additionally, parents play a critical role in either helping or hindering treatment compliance, including medication and between-session practice of therapeutic skills.

CLINICAL APPLICATION: FAMILY-BASED COGNITIVE-BEHAVIORAL THERAPY

The current treatment protocol was developed for family-based treatment of early-emerging OCD[18] and is rooted in the well-established treatment developed for treatment of pediatric OCD.[14] Although originally implemented with young children, this treatment program is easily adapted for use with older children and adolescents.

The treatment protocol is typically 12 to 14 sessions delivered weekly. The format of the treatment program progresses as follows: (1) psychoeducation, (2) behavior management skills training (parent tools), (3) externalizing OCD and graded ERP (child tools), and (4) family process issues; summarized in **Table 3**.

Psychoeducation for Parents

As with most individual CBT treatments of OCD, this treatment program begins with psychoeducation about OCD. With young children, this is first accomplished with parents alone during 2 initial 90-minute sessions to introduce key points. This is contrasted with individual treatment models or family-based models with older children

Table 3
Family-based cognitive-behavioral therapy treatment summary

	Family-Based CBT Component Summary
Psychoeducation	• OCD in neurobehavioral framework • Treatment rationale • Normative rituals vs OCD • Psychoeducation tailored to youth's developmental level
Parent Tools	• Differential attention • Modeling • Scaffolding
Child Tools	• Externalizing OCD • Fear thermometer • ERP
Family Processes	• Reduction of accommodation • Family problem solving • Enhanced communication skills

and adolescents, in which psychoeducation is often provided in initial sessions with both the parent and child together.[12,14] Parents are introduced to the neurobiological framework of OCD and misattributions about OCD are amended. Functionally, this helps alleviate blame and introduces optimism about the treatment of OCD. Families are provided with information about recent advances in the treatment of OCD to instill hope; however, they are also given the place to process sadness, fear, and resentment about the impact of OCD on their child's and their family's functioning.

At this stage, it is also important to discuss normative obsessive-compulsive behavior (eg, annoying song that gets stuck in one's head, rigidity in routines in early childhood) and differentiate that from OCD behaviors that additionally are intrusive and ego-dystonic. This is emphasized to help parents distinguish between OCD and non-OCD behaviors and identify ways in which OCD causes problems for their child and family (**Table 4**).

The clinician then aims to clarify typical patterns observed in OCD, how families become intricately involved in OCD rituals, and how family-based treatment can begin to help alleviate symptoms and distress. It is critical for parents to understand clearly the treatment rationale, as well as the overall agenda of the treatment program. Key ideas to establish early with parents include discussion that they too will endure distress as they observe their child experience anxiety, that treatment will likely seek to alter current family routines and practices, and that dedication to between-session practice is essential for improvement. Parents thus gain an understanding of their role in treatment as active participants who critically promote behavioral change.

Clinical Vignette: Family Accommodation Observed with Young Child

Presentation: Eva is a 6-year old girl who has become increasingly concerned with germs. Her parents describe how Eva will visually check toys and eating utensils for spots or blemishes and will ask repeatedly if everyday objects are clean enough to use. When she finds spots on objects, she will ask her parents to clean them for her. Until recently, they have been obliging her requests, particularly during transitions, but it has become increasingly worse. She has begun to refuse to touch anything her siblings have used and becomes very upset when her younger brother touches her toys. Her parents indicate that during the past 2 weeks at school, Eva's teacher has seen her stand near her desk instead of sit down, use hand sanitizer frequently,

spend more time in the bathroom, and she is even starting to avoid playtime activities with friends.

- *Evaluation: Full developmental history to rule out neurologic, developmental issue, comorbidity (eg, tics, disruptive behavior, generalized anxiety). Explicitly obtain full history of symptoms and parents' understanding of Eva's fears, behaviors, and rituals.*
  - *ADIS*
  - *CY-BOCS*
- *Family accommodation: As part of the intake, clinician should gain a full understanding of accommodation. How do parents respond to requests to clean? Do they offer reassurance? What happens to Eva's anxiety if they do so or not? What happens when she refuses to touch items handled by her siblings? How are family routines affected by Eva's fears? What about at school?*
  - *Family Accommodation Scale (FAS) as needed*
- *Plan: Contextualize these behaviors as OCD, a hiccough in Eva's brain that makes her focus more on germs, begin psychoeducation about OCD, treatment, and family involvement in OCD rituals.*

Psychoeducation for Children

Beginning in the third session with younger children, psychoeducation is provided to the child in a developmentally appropriate manner, making ample use of metaphors, imagery, and examples. A special goal of psychoeducation with the child (and parents) is to externalize OCD as separate from the child (eg, giving OCD a nickname or simply labeling as OCD). Psychoeducation with the child should portray OCD as an entity that intends to undermine the child's true wishes (like a bully or annoying younger sibling), as well as introduce the idea that the child can be the boss of OCD behaviors. Facilitating the child's understanding of how OCD works is critical for next steps in providing the rationale for ERP and identifying ways to reduce ways that OCD "bosses" or "bullies" the child.

Table 4
Developmentally appropriate rituals and fears found in children

Age	Normal Behavioral Rigidity and Rituals
1–2	Strong preference for rigid around-home routines (eg, nighttime, bath time). Very aware and can get upset about imperfections in toys or clothes.
3–5	Play activities are repeated over and over (and over) again.
5–6	Keen awareness of the rules of games and other activities (eg, classroom rules) and may become upset if rules are altered or broken.
6–11	Engage in superstitious behavior to prevent bad things from happening (eg, do not step on a crack). May show increased interest in acquiring a collection of objects.
12+	Become easily absorbed in particular enjoyable activities (eg, video games) or with particular people (eg, pop stars, athletes). May show superstitious behavior in relation to making good things happen (eg, performance in sports).

Data from Freeman JB, Garcia AM. Family based treatment for young children with OCD: therapist guide. New York: Oxford University Press; 2008; and Evans DW, Leckman JF, Carter A, et al. Ritual, habit, and perfectionism: the prevalence and development of compulsive-like behaviour in normal young children. Child Dev 1997;68(1):58–68.

Parent Tools

To ensure sustainability of interventions and facilitate between-session practice of therapeutic skills, parents are trained as coaches or cotherapists for their children. This enables families to support effective use of ERP outside of the therapy room while extricating themselves from OCD rituals.

Differential Attention

To help caregivers manage distress associated with OCD treatment, the authors have integrated parent-training elements into the FB-CBT protocol, including increased positive attention, planned ignoring, and use of a reward program.[43,44] Parents are encouraged to target positive non-OCD behaviors with appropriate prompts and praise. Parents also learn how to disengage from OCD behavior with planned ignoring, including engaging in less eye contact, verbal interaction, and touch. Older children may be more interested in increased autonomy and privileges, and these can take the place of prizes or special time with parents.

Modeling

Parents are encouraged to monitor how escalations in their own distress influence how the child interacts with OCD. Thus, as they become more skilled in coping and ERP strategies, parents can model adaptive responses to OCD behaviors.

It is also important to note the parallel modeling process of therapist to parents. It can be beneficial for families to see how the clinician responds to OCD symptoms and encourages the child to use skills in session. By learning how the clinician interacts with the child's OCD symptoms, parents learn how to implement ERP, monitor symptoms, map current OCD behaviors, and broaden their response repertoire to reassurance seeking and other OCD symptoms.

Scaffolding

Just as therapists aim to increase parent and child tolerance of anxiety and independent use of tools, parents also are tasked with helping the child increasingly manage distress independently. To achieve this, parents encourage the child to increase use of coping tools and scale back their own efforts to step in and directly alleviate child distress. However, watching one's child in distress is distressing! Helping parents learn how to manage their own anxiety is integral to helping children manage theirs.

Child or Adolescent Tools

Externalizing obsessive-compulsive disorder

The first child tool emphasized in treatment is externalization of OCD. This begins during psychoeducation, when the clinician models with externalizing language and encourages the child to separate OCD processes from the self by naming them with either an irreverent nickname (eg, Booger Man) or labeling simply as OCD. The authors encourage clinicians to draw on the child and family's creativity. With young children, it may be helpful to have the child draw a picture of OCD or develop an OCD character.

Fear thermometer

The fear thermometer is used to rate and monitor the child's subjective anxiety level. The clinician frequently checks in with the child (and parents), asking them to rate their anxiety level according to a developmentally appropriate rating scale (eg, analog

visual faces scale with small child, 1–10 with adolescent). Ultimately, the fear thermometer provides a tool for the child to report distress efficiently.

Exposure and response prevention with family disengagement from obsessive-compulsive disorder

ERP in the context of FB-CBT aims to increase the family's ability to manage the feared situations (with the appropriate coping tools in hand) rather than avoid or escape them.

ERP progresses in much the same ways as outlined in individual CBT treatment, with one significant difference: parents are involved directly with exposure tasks. Exposures at first will be conducted by the therapist with the parent observing. Then, the therapist will scaffold transfer of exposure tasks to the parent over time. Additionally, when conducting exposures, parents will practice tolerating their own anxiety and modeling adaptive behavioral responses to OCD.

Family dynamics

Understanding the contextual and family processes is critical to successful implementation of this family-based treatment program. Accommodation of OCD is typically an instinctive practice because it serves to alleviate child and parent distress as well as keep the family functioning. Thus, helping parents be more mindful of how they habitually interact with the child's symptoms of OCD is crucial for success.

Changing the ways in which families interact with OCD may lead to arguments and challenges to family functioning. As a result, it is critical to help the family increase positive communication and problem-solving skills. The authors have found it beneficial to help families identify predictable patterns of behavior related to worsening of symptoms and subsequent disruptions in family functioning. Coaching communication skills, such as active listening, labeling personal feelings or thoughts with "I think" or "I feel" statements, establishing ground rules for when to discuss tough topics, and identifying common communication traps, can improve family discourse and make emotional conversations more connecting.

COMBINATION OR PHARMACOLOGIC THERAPIES

Although CBT is the standard first-line treatment of mild-to-moderate OCD, the most recent American Academy of Child and Adolescent Psychiatry (AACAP) standards designate that in moderate-to-severe cases medication is indicated in combination with CBT.[45] Current empirical data indicate SRIs as first-line medication to be implemented in combination with CBT for the treatment of pediatric OCD.[45] As observed in the Pediatric Obsessive-Compulsive Disorder Treatment Study (POTS) trial, effect sizes for combination therapy tend to reflect the additive effects of CBT and medication monotherapies (ie, 1.4, 0.97, 0.67, respectively).[38] A 2003 meta-analysis comparing the effects of SRIs in RCTs indicated a combined pooled effect size of 0.46, significantly greater than placebo, with clomipramine significantly greater than selective SRIs (SSRIs; eg, fluoxetine, sertraline, fluvoxamine, paroxetine, citalopram), which were equally superior to placebo.[46] Despite this, SSRIs tend to be the first choice for children given common adverse effects of clomipramine and necessary cardiac monitoring.[2,45]

The evidence cannot currently answer which SRI is best for which child, and current practice parameters reflect this evidentiary gap.[45] However, medication should generally be considered in moderate-to-severe cases, including CY-BOCS scores at or above 23 or if functional impairment is marked.[45] The original POTS trial found that in children with a first-degree relative with OCD, CBT was 6 times more effective

when an SRI medication was also a part of the treatment.[27] Those children who present with comorbid tics are likely to fare better with CBT or CBT combined with medication but not medication alone.[47]

Monitoring the child's response to medication closely to attain the highest tolerated dose will result in more positive outcomes. This is accomplished more frequently by involving the family in the monitoring process and addressing any symptoms that directly interfere with adherence.

TREATMENT RESISTANCE

The empirical literature suggests that for some children, a time-limited course of CBT treatment is not entirely effective. Indeed, as many as one-third to one-half of children with OCD could be considered treatment-resistant, meaning they do not fully benefit from established efficacious treatments.[45] In these cases, the authors suggest that family-based treatment is especially helpful because as symptoms and level of functional impairment increase so does the likelihood of problematic family factors (eg, parent–child interaction style, parental negativity, family accommodation). However, the evidence for FB-CBT is also just emerging and marked by nonresponders to treatment. Thus, in cases of nonresponse or partial response, extension of treatment is warranted, including (1) medication augmentation, (2) further involvement of family members in treatment and alternative family-based approaches (eg, emerging evidence for PFIT, previously described[42]; FB-CBT in response to medication nonresponse),[48] or (3) increased intensity of treatment (eg, longer duration, more frequent sessions).

Clinical Vignette: Identity Contagion and Treatment Resistance

Presentation: Marissa is a 13-year-old girl who has been receiving individual CBT treatment of OCD for more than 2 years. She is currently on her second trial of an SSRI. Her symptoms have persisted despite a recent increase, albeit she is not yet at the maximum tolerated dose. Her obsessions have recently involved contagion thinking and scrupulosity. Specifically, she expresses concerns of being blasphemous because she started working on a school project with a classmate who identifies as atheist. She believes her classmate is likable and kind but she also has intrusive thoughts that if she accepts her classmate's ideas into her project her own beliefs on spirituality could be tainted. Marissa also expresses concerns that she could be responsible for her damnation if she does not pray perfectly every night. Her compulsive praying includes striving for an experience of "an open heart and visualizing a smiling Jesus," otherwise she might be praying to Satan. During a recent session, she noted that she has begun to feel disconnected from her family and her church. She repeatedly talks to her parents and her youth pastor questioning if her faith is sincere and they have reassured repeatedly that her acute concern is evidence that her heart is in the right place.

- *Plan: Obsessions based on spirituality need to be treated with the utmost sensitivity and with frequent family processing and involvement. Because of Marissa's family's devout religious background, it is important to involve them in discussion and planning of exposures related to her current fears, particularly with discussing appropriate exposure targets (ie, explicitly only ones that she is "stuck" thinking about).*
- *Involving the family, OCD should be framed as exploiting Marissa's spiritual values and the family's desire to help. Family members can both model appropriate adherence to the family's faith and encourage exposure targets that are clear, acceptable externalizations of the family's faith.*
- *Given Marissa's symptom recurrence and severe presentation, additional consultation with her child psychiatrist is warranted. Because she is experiencing persistent symptoms, she should continue with a medication increase to the maximum tolerated dose consistent with positive response or to the point at which adverse event (eg, side effect) is experienced.*

The most common medication augmentation strategy is adding clomipramine to the child's current SSRI, thereby enhancing serotonergic effects.[45] No RCTs have evaluated the effects of medication augmentation with atypical neuroleptics in children; however, preliminary evidence supports that after 2 or more failed trials of SSRIs or enhancement with clomipramine, atypical neuroleptics may be considered.

EVALUATION OF OUTCOME AND LONG-TERM RECOMMENDATIONS

Evaluation of symptoms and functional status should be an ongoing process occurring throughout treatment. Typically, treatment-outcomes are evaluated based on both short-term and long-term goals set with the family.

As the child and family begin to achieve treatment goals of reduced compulsive behavior and reduced family accommodation, and as functional status is improved, the clinician and family need to prepare for longer term goals beyond therapy. The clinician may revisit psychoeducational conversations that addressed the waxing-and-waning nature of OCD, review progress, and highlight tools that the family and child now have that prepare them to (1) predict and identify the reappearance of OCD symptoms and (2) to face such future OCD symptoms with demonstrated bravery, creativity, and family support to mediate a symptom flare from turning into full relapse.

Indeed, because OCD symptoms tend to wax and wane, treatment response can be conceptualized and talked about with families as "living with Os and Cs." Even though obsessions might emerge again, the child and family have learned how to interact with it in such a way (ie, not engaging in compulsions) that the experience of obsessions is short-lived and not interfering; in other words, removing the "D" from the equation.

SUMMARY

There is growing consensus that CBT approaches for pediatric OCD must include substantial family-based elements to improve treatment compliance and address functional family accommodation. Effective family-based treatment identifies and addresses family dynamics that affect the development and maintenance of OCD symptoms. Simultaneously, family members learn to manage anxiety associated with OCD and develop tools that increase their adaptive coping skills. Increased research will continue to strengthen ongoing clinical implementation of family-based treatment. Ultimately, these efforts will improve outcomes for children with OCD and their families.

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