



Engaging Preschool and Early Elementary School-Aged Children in Exposure and Response Prevention (ERP)

Robyn E. Metcalfe · Preeti Pental · Danny C. Duke

Published online: 9 July 2022

© National Register of Health Service Psychologists 2022

Abstract

Engaging children and caregivers in exposure and response-prevention (ERP) is a critical element in effective treatment of obsessive-compulsive disorder (OCD) in young children. Several clinical challenges pose barriers to participation and implementation of successful treatment such as specific parenting behaviors (e.g., accommodation of obsessions and compulsions) and child motivation for treatment. The authors offer strategies to address common clinical challenges in engaging young children with OCD and to promote effective implementation of ERP with children and caregivers.

Keywords Anxiety treatment · Anxiety disorders · Pediatric obsessive-compulsive disorder · Cognitive behavioral therapy

Clinical Vignette

Daisy is a 7-year-old girl who was referred to a pediatric anxiety treatment service due to concerns for obsessive-compulsive behaviors. Daisy's parents denied any significant medical history but did endorse a family history of anxiety and depression. During the intake assessment, Daisy's parents described her as a "master nitpicker." Her parents further reported that Daisy's perfectionist tendencies have significantly interfered with activities of daily living across settings, such as insistence on order and routine that impede with completing homework and getting ready for school.

Her parents also reported that Daisy has exhibited contamination-related obsessions and compulsions, excessive reassurance-seeking, and substantial concerns with "right and wrong." According to Daisy's parents, Daisy has been washing her hands as often as 40 times per day, even when not leaving the home, due to fear of germs; they further acknowledge that Daisy's fear of contamination has led to excessive showering over the past six months. Daisy reported that she has experienced a strong need to wash her hands and has frequently worried about herself or others becoming ill. Her family expressed that Daisy has often expressed concern she has not washed her hands enough, insisted on a specific order for routine activities such as using the bathroom before bed, has had difficulty discarding toys or books she has outgrown

or no longer uses, and has often sought reassurance from her parents associated with her worries. According to her parents, Daisy's symptoms have waxed and waned over time; the most disruptive recent concerns have been contamination related. Daisy's fears of contamination, which were interfering with daily life before the pandemic, were heightened with COVID-19.

Daisy's mother stated that she has spent a significant portion of each day reassuring Daisy that she is not contaminated and will not harm anyone. With the onset of COVID-19, her mother noted the family has assured Daisy that masks are protective, frequently used hand sanitizer, and purchased special antibacterial soap in an effort to placate Daisy's increased worries. Daisy's father described frustration with Daisy's behavior and uncertainty about how to maintain appropriate boundaries. "If I ask her to do anything that makes her uncomfortable, she has a meltdown," he said, describing tantrum behavior such as screaming and throwing items on the floor.

During the intake, Daisy demonstrated age-appropriate insight and activity for a 7-year-old child. Approximately half-way through the intake, she left her seat and played quietly, appearing to lose interest in the intake process. What strategies would be most helpful for a health service psychologist to employ to help Daisy and her parents manage her obsessive-compulsive concerns given her early elementary school developmental stage?

Obsessive Compulsive Disorder (OCD) as a Presenting Concern

Obsessive-compulsive disorder (OCD) is an anxiety-related disorder in which patients experience excessive, intrusive, and unwanted and distressing thoughts or images (obsessions), which are anxiety-provoking and difficult to inhibit, with repetitive behaviors or mental acts performed to address or correct the distressing thoughts (compulsions; American Psychiatric Association, 2022). OCD can present across the lifespan, including in childhood. Although the bulk of the research has focused on adults and older youth, OCD has been documented in children as young as age three (Lewin et al., 2014), with early and middle childhood onset often resulting in disabling and disruptive presentations (Freeman et al., 2007). In younger children, compulsions without expressed obsessions is a relatively common presentation, which may reflect difficulty distinguishing between obsessions and typical thoughts in this age group (Franklin et al., 2019).

Often, obsessions evoke feelings of dread, as if something terrible will happen if not corrected. Common symptom dimensions of OCD seen in children include obsessional thoughts of contamination or germs, concerns about responsibility for harm, “unacceptable” thoughts, and concerns about symmetry, completeness, or a need for things to be “just right” (Abramowitz et al., 2010). Among young children (i.e., under the age of 8 years old) with OCD, contamination, fear of enacting aggression, and fear of causing a catastrophe are the most common obsessions, while washing and checking are the most common compulsions (Garcia et al., 2009). Children with OCD often experience other cognitive features such as overestimation of risk, fear of potential harm, a need for certainty, perfectionism, feelings of excessive guilt or shame, and rigid attitudes around rules (Plaisted et al., 2021).

The etiology of OCD in childhood is complex and is likely formed by a combination of neurobiological, genetic, and environmental factors (Franklin et al., 2019). Nevertheless, behavioral principles provide context for understanding how obsessions and compulsions are formed and maintained—by principles of classical and operant conditioning, respectively (Law & Boisseau, 2019). For example, a neutral stimulus may elicit fear when frequently paired with another stimulus that inherently causes distress. This pattern is also thought to reflect processes in other psychological disorders seen in childhood including panic disorder, social anxiety disorder, specific phobias, and posttraumatic stress disorder (PTSD; Craske et al., 2014). Similar to adults, children with OCD typically engage in escape behaviors to avoid distress. Because escape behaviors are successful in reducing anxiety (negative reinforcement), the temporary relief they yield

reinforces the compulsive behavior. Weakening this conditioned response is key to the effective treatment of obsessions and compulsions.

Exposure and Response Prevention (ERP)

OCD can be effectively treated across the lifespan. The aforementioned behavioral background forms the basis of Exposure and Response Prevention (ERP), which is considered a first-line treatment for OCD in pediatric populations, including preschool-age and early elementary school-age children, like Daisy in the vignette (Freeman et al., 2014; Lewin et al., 2014). ERP yields more robust effect sizes and long-term positive outcomes for children than other available treatments for OCD, including medication (Öst et al., 2016). The literature provides support for both intensive (e.g., 15 sessions over three weeks; Abramowitz et al., 2003) and weekly ERP sessions to treat OCD (Franklin et al., 2019).

Broadly speaking, ERP refers to the use of exposure procedures for obsessions as well as the prevention of compulsive behaviors. Historical models of ERP have stressed the importance of habituation, with fear naturally decreasing when a patient is exposed to a distressing stimulus without avoidance behavior (e.g., Foa et al., 1983). However, more recent work has revealed that inhibitory learning, wherein patients form new, less fear-inducing associations, is more predictive of treatment outcomes (Law & Boisseau, 2019). In other words, through exposure, patients learn both that their distress is tolerable, and their negative expectations are violated when actually confronted with the situation they fear.

Although there is no evidence that parent (or caregiver / legal guardian) presence for exposures predicts clinical outcomes for children (see Plaisted et al., 2021), parental involvement is appropriate for young children due to their limited developmental capacity to actively participate in individual treatment (Choate-Summers et al., 2008). Thus, a developmentally adapted presentation of ERP provides parents and children with a framework (i.e., understanding) and tools for how to overcome the child’s obsessive-compulsive symptoms, with a focus on implementing exposures in the home setting (Lewin et al., 2014).

Indeed, for children under the age of approximately eight years, parent-based strategies are hypothesized to be the primary driver of child behavior change (Choate-Summers et al., 2008). Depending on the child’s attention span, young children may only participate for a portion of the session. Of course, this varies depending on the specific child and family. Flexibility in the delivery of evidence-based care, based on the child’s needs and families’ unique circumstances, is important and, when combined with other “common factors” such as empathy and a therapeutic alliance with parent and

child, can improve treatment (Franklin et al., 2019; Metcalfe et al., 2021).

Assessment

Health service psychologists working with children with OCD symptoms typically initiate treatment with an intake interview and other standardized or semi-structured methods of assessing a patient's history, level of impairment, and severity of symptoms. Psychologists may choose to incorporate a standardized assessment such as the Children's Yale-Brown Obsessive Compulsive Scale (CY-BOCS; Scahill et al., 1997). Although this measure is intended for children aged six and older, it has been used successfully with younger children in clinical research focused on early childhood OCD (e.g., Choate-Summers et al., 2008). The CY-BOCS is in a semi-structured interview format, administered with parent and child together. Nevertheless, for some children who are younger or less engaged, it may be appropriate to interview parents alone. Additional specific assessment options are described by Franklin et al. (2019). For example, it may require minor adaptations that include using more age-appropriate language for younger children. Franklin et al. (2019) also recommended administering the CY-BOCS in reverse order for young children—beginning with compulsions and ending with obsessions.

An effective initial assessment of child and parent is important to distinguish between compulsive ritualized behaviors and developmentally appropriate behaviors (e.g., a specific bedtime routine), and other anxiety symptoms and behavioral concerns. Additionally, because young children may struggle to identify specific fears associated with their compulsions, it may be difficult to distinguish between compulsions and tics (Choate-Summers et al., 2008). Notably, as many as 88% of young children with early onset OCD also meet diagnostic criteria for at least one other psychiatric condition (Garcia et al., 2009), which highlights the importance of clearly conceptualizing and distinguishing the child's presenting concerns. To optimize family success with hierarchy development and exposure implementation, assessment of OCD symptoms should also focus on understanding the child's fear that leads to the compulsive behavior to ensure exposures are correctly designed. In other words, the psychologist should clearly connect the child's obsessions and compulsions, and understand how they are associated.

Other comorbidities are also important to assess in children with OCD symptoms. For example, in the presence of autism spectrum disorder (ASD), psychologists may need to differentiate repetitive stereotypies from compulsive behaviors, while also being aware that OCD occurs at higher rates in children with ASD (Meier et al., 2015). At times, behaviors in the putative category of the body-focused repetitive

disorders can also present similarly to OCD. For instance, trichotillomania can include ritualized behavioral patterns but is not OCD.

Assessment of Obsessions Within Family and Environmental Contexts

Goals of assessment of children with OCD symptoms include identifying intrusive, excessive, and distressing obsessions and compulsions, with an understanding that normative worries and fears may also be distressing but are generally adaptive and helpful. In certain situations, determining whether anxiety is excessive and unhelpful for a child is subjective. Daisy, the child in our clinical vignette, presents with contamination-related obsessions that worsened in the context of the COVID-19 pandemic. When considering Daisy's treatment, it would be important to collaborate closely with her parents to select targeted exposures to address excessive/problematic obsessions and compulsions that pre-dated COVID-19, as well as those associated with COVID-19, while clarifying that a portion of Daisy's worries are normative and expected in the context of a global pandemic. Although generally important as an aspect of OCD treatment with children, other common obsessions and compulsions that may require extra attention to psychoeducation and close collaboration with family to determine whether obsessions and compulsions are excessive include scrupulosity (e.g., rule-following; religiosity; need to tell, ask, or confess) and perfectionism (e.g., need to redo a task, such as art or homework, until perfect; competitiveness associated with performance). These characteristics in children can, of course, be helpful and adaptive, particularly in school. It is when these concerns cease being helpful and begin to interfere with a child's functioning that treatment becomes important to consider.

Psychoeducation and Orientation to Treatment

At the initiation of treatment, psychologists should provide parents with psychoeducation about their child's OCD symptoms and ERP treatment, including information about effectiveness, goals of ERP, mechanisms of change, and what treatment components will be used. Because parents are responsible for nearly all of a young child's environment, ensuring parental "buy-in" is essential. A parent who does not understand or agree with the treatment may be more likely to prematurely abort exposures they find distressing, which may worsen a child's obsessive-compulsive symptoms. For parents who are less change oriented or who are skeptical of their ability to implement treatment, motivational interviewing (MI) strategies may be helpful in facilitating changes in parent behavior and, indirectly, child behavior (Stormshak et al., 2021).

Psychologists should also introduce the Subjective Units of Distress Scale (SUDS) to assess severity of child distress and inform selection of exposures. The SUDS has a range of 1-10 or 0-100 and can be presented to a child as a “feelings thermometer” with higher scores indicating more distress. The use of pictorial scales is potentially an appropriate modification to traditional SUDS scales when used with children. Another alternative that is effective with children is the use of a three-point rating of thumbs up (meaning, “it’s easy”), thumbs sideways (“it’s medium difficult, but I can do it”), and thumbs down (“it’s too difficult”). For some children, the use of a rating scale may not yet be practical and distress tolerance can be estimated by the parents and psychologist based on the child’s behavior (Freeman et al., 2012).

Hierarchy Development

Based on a modified and collaborative functional analysis, the patient and psychologist work together to develop a treatment hierarchy for the child of feared and avoided items, locations, or situations, with consideration of prompting events, specific fears, and avoidance behaviors or rituals. Each item on the hierarchy is assigned a SUDS rating by the child or parent. Depending on parent presentation and time constraints, this hierarchy can be developed in session or families can be guided in the development of a hierarchy at home, between sessions. An example hierarchy for a seven-year-old child, similar to Daisy in the vignette, is presented in Table 1.

This hierarchy can be used to inform initial treatment targets for the child’s OCD symptoms. In general, when using a 1-10 point scale, an effective exposure for a child should be between a 4 and a 7. For SUDS ratings lower than a 4, the exposure may not be particularly meaningful. For SUDS rating above a 7, the exposure is likely too anxiety-provoking for the child to tolerate. Nevertheless, it is important to note that greater contrast between a child’s expected outcome and actual outcome during an exposure can facilitate more rapid progress, learning, and engagement in higher order exposures to maximize gains. Thus, there are benefits to encouraging children and parents to engage in more challenging exposures, within reasonable limits, based on child and family goals. Importantly, a hierarchy is a living document, not static, and the child’s actual distress while engaging in an exposure is often different from their initial SUDS rating (higher or lower).

It can be helpful to work with the child and parents to choose a single exposure target at a time and, for motivational reasons, to begin with exposures the psychologist believes will facilitate early success. Once (an) initial target(s) of exposure have been identified, it is important to re-assess parental understanding of treatment so that they can provide appropriate support of their child engaging in exposures. It may be

Table 1 Example Hierarchy for Seven-Year-Old Patient

Target	SUDS Rating (0-10)
1. Coming home from school without washing hands	9
2. Causing someone to become infected with an illness	9
3. Mom getting sick	9
4. Getting into bed without showering first	8
5. Showering for less than 30 minutes	8
6. Getting into the shower before rinsing it off	7
7. Washing hands one fewer time per day	5
8. Use of regular soap instead of antibacterial soap	5
9. Completing the bedtime routine in a different order	4
10. Throwing away a toy and wanting it again later	4

Note. Some of these items may be more appropriate for an *in vivo* exposure and some may be more appropriate for an *en sensu* exposure.

helpful to acknowledge parental emotions and distress associated with their child’s exposures and to provide appropriate support and psychoeducation as needed. The benefit of exposures can be enhanced by the child rating the expected difficulty of the exposure before and then again after the exposure using the SUDS (Craske et al., 2014).

Exposures

Identifying age-appropriate and effective exposures is often a creative process when working with children with OCD symptoms. Exposures for young children can be designed to occur in the context of play, artwork, or other developmentally appropriate activities (Choate-Summers et al., 2008). Exposures with children can be *in vivo* (in real life) or *en sensu* (imaginal). *In vivo* exposures allow children to come into direct contact with the stimuli related to their obsessions, which directly disconfirms the feared outcome. For *en sensu* exposures, families and psychologists collaborate to generate a detailed representation of the child’s fears. Exposures for young children may involve the child drawing their fears, collaborative storytelling with a parent, or playtime with action figures, dolls, toys, or stuffed (plush toy) animals. In session, it is often useful to do a “field trip” to model for the parent effective exposure procedures with the child. Although exposures can be accomplished in session, to mass exposures and achieve more rapid progress, parents should be encouraged to implement appropriate exposures with their child between sessions.

As specific treatment targets are resolved with a child’s OCD symptoms, new concerns can be targeted. Progress is monitored by families and by the psychologist. Celebrating

and praising the child's progress is important for fostering motivation in treatment. When the child's symptoms are sufficiently reduced, it is important to discuss a plan for maintaining gains and addressing anxiety concerns that may arise, including using exposures to address them. Use of boosters or gradual fading may be appropriate to help children transition out of treatment and to make sure that parents have sufficient skills to help maintain treatment gains and manage obstacles. Because it is common for children or their parents to experience anxiety about ending care and OCD symptoms can re-emerge, it can be helpful to have a policy of scheduling as-needed sessions for a time period after termination.

Clinical and Ethical Challenges

Despite clear clinical need, little attention has been paid to the specific needs of preschool and early elementary school-aged children with OCD. ERP can be a challenging treatment to implement with any age group. However, for young children (i.e., under 8 years old), additional clinical challenges must be addressed.

Challenge: Parenting Behaviors

Understanding parental behavior is particularly important for the treatment of young children with OCD symptoms. Parents may, for example, unintentionally accommodate their child's symptoms by assisting them in compulsive behavior or by engaging with the child in their excessive reassurance-seeking (Law & Boisseau, 2019). Parents may understandably engage in this behavior because they perceive it as streamlining family functioning even though it may be reinforcing OCD symptoms (Choate-Summers et al., 2008). A natural, common parental impulse is to engage in behaviors that soothe a child's anxiety. However, the behavior can increase symptom severity and result in greater impairment for children with OCD in the long run. Even when parents understand and agree with the principles of ERP, they may still struggle to manage situations that arise related to their child's OCD symptoms and associated impairment.

Evidence-Based Practice Consideration: Parent Management Training

Incorporation of behavioral parent training or Parent Management Training (PMT) can be especially important for families of young children with OCD because it helps parents to navigate the difficult behaviors they may be facing at home while avoiding or reducing unhelpful behaviors that reinforce OCD symptoms. Although there are numerous evidence-based parenting programs for this age group including the Incredible

Years (Webster-Stratton, 2005), the Triple P-Positive Parenting Program (Bor et al., 2002), and the Family Check-Up (Stormshak et al., 2022), effective programs share many parenting strategies such as positive family relations (e.g., interactive play), reinforcement, effective requests and commands, selective attention, non-violent consequences for problem behavior (e.g., timeouts), and family-based problem-solving skills. Given the numerous behavioral problems that typically arise for children with OCD symptoms, parenting strategies should be explicitly assessed and PMT psychoeducation and skill-building should be incorporated throughout treatment.

In addition to conventional PMT goals, specific parent-focused goals for OCD in young children include reducing parental accommodation of OCD symptoms, reducing parental criticism and frustration about OCD symptoms, improving parents' problem-solving processes for addressing OCD-related concerns, and addressing parental modeling of anxious behaviors (Freeman et al., 2012). PMT-based strategies may also directly facilitate ERP treatment. For example, the use of a reward system may help facilitate the practice of exposures outside of session by increasing child motivation and associating approaching fear cues with a good outcome.

Challenge: Child Understanding of Treatment

It is developmentally appropriate for young children to lack the metacognitive skills to comprehensively understand their OCD symptoms. Further, although child engagement and understanding of psychoeducational content is important for psychologists working with children (Plaisted et al., 2021), young children may struggle to understand the treatment for OCD and the motivation necessary to actively participate in ERP. Because ERP involves intentional exposure to stress-inducing stimuli, ERP is an inherently distressing treatment. This inherent distress may explain why ERP has a higher treatment dropout rate for children than other cognitive-behavioral therapies for OCD (Öst et al., 2016). Importantly, it is ineffective for parents to force a child into engaging in an exposure without their agreement and age-appropriate understanding of the plan. This assent process is likely to be somewhat distressing for children and parents and elicit avoidance behaviors within the family that hinder treatment progress.

Evidence-Based Practice Consideration: Metaphor and Storytelling

Use of metaphor and storytelling is one common strategy for improving child engagement, assent to treatment, and understanding of ERP. A metaphorical representation of anxiety such as an "anxiety monster" or "fear dragon" may help children externalize their anxiety, worries, and fears so

that they can understand treatment and processes without interpreting themselves as the problem (see Figure 1). Storytelling is often more relatable for young children than traditional ERP psychoeducation. Further, the approach opens the door for other strategies to increase child engagement. Children may name the OCD monster, creating a common language, which can include describing the OCD monster (“What does it look like?”), and drawing a picture of the OCD monster. Doing so creates an externalized image and target of treatment for the child.

In introducing this concept, a psychologist might draw upon the image and name created by the child, and say:

“You can imagine you’re a princess in a magical kingdom and there’s a fear dragon. He looks very scary... but this creature is a trickster. Even though he looks scary, he doesn’t have real power. Your job as the princess is to protect the kingdom and defeat the dragon. First, you need to recruit an army. Who could be in your army? What about your parents, grandparents, teachers, or even me (the psychologist)? Next, you need some powerful strategies and tools to do battle. The most powerful weapon against fear dragons is bravery. Being strong and brave weakens the dragon because his only power is by fooling or tricking people into being afraid of things that won’t harm them. Other powerful weapons (or tools) that can be used against the



Figure 1 Example Child-Generated Illustration of a “Fear Monster”

fear dragon are things that help bravery. You can feel more brave by breathing slowing and deeply when facing scary things like fear dragons, or by finding things in the world around you to focus on, or by reminding yourself to be brave.

After battling a fear dragon you may become tired. After all, fighting fear dragons is hard work. You might need some “magic power crystals” (reward tokens), to help you keep up your energy to keep battling the fear dragon.”

This core metaphor can take many forms and easily be adapted to meet the specific interests of the child’s needs and family structure. The psychologist can work with the child and family to construct the core metaphor over time. Coping strategies can be framed as weapons against the fear dragon and taught in detail over the course of treatment. Notably, some families may not be receptive to the idea of “weapons” and the story can easily be adapted to align with specific family values such as using the term “tools” instead. Additionally, the story should focus on the interests of the child. For example, children may want to assume the role of a superhero or, if they enjoy video games, may like the idea of “earning power-ups” as rewards or beating the “boss” at the end of a “level.”

Importantly, psychologists, parents, and children all vary in the extent to which they are concrete thinkers; thus, this approach may not resonate with all children, families, or psychologists. However, when a creative evidence-based ERP approach is engaged, the result can be a powerful strategy for enhancing motivation and success of young children and sometimes even older youth (i.e., a developmental age of up to 10–11 years) in treatment.

Challenge: Dropouts

It is well-established that anxiety and OCD treatment services tend to experience higher dropout rates in adults and children, at least in part due to the anxious characteristics of the population served (e.g., comorbid social anxiety, agoraphobia, etc.) (Öst et al., 2016). Concerns about dropout rates are common for health service psychologists considering a distress-inducing intervention like ERP. Thus, several aspects of treatment become important to enhance retention and treatment effectiveness for children with OCD symptoms.

Evidence-Based Practice Consideration: Use of Other Therapeutic and Cognitive-Behavioral Strategies

To optimize the effectiveness of treating children, attending to the therapeutic alliance should be a specific early focus of treatment. Establishing strong provider-child and provider-parent relationships are the foundation upon which both children and parents are motivated to engage in, and

support, challenging and difficult behavior changes (e.g., Metcalfe et al., 2021). Children should enjoy attending sessions and voluntarily return each week. Thus, the importance of psychologists applying basic behavioral principles, such as positive reinforcement of participation in treatment, cannot be overemphasized when working with children. Child engagement should consistently lead to positive outcomes, unconditional support, and fun.

ERP can be effective as a standalone procedure but tends to be more effective when used along with other evidence-based cognitive-behavioral components. Notably, incorporating cognitive-behavioral interventions typical for anxiety, such as the explicit teaching of coping skills (e.g., breathing, grounding, guided imagery), can help to mitigate treatment dropout rates for ERP with children, resulting in dropout rates no different from other cognitive-behavioral interventions (Öst et al., 2016). However, it is important to note that Öst et al. (2016) found that even standalone ERP demonstrated lower dropout rates than medication alone. This information about the incorporation of other cognitive-behavioral components may be important for assuaging a psychologist's concerns that ERP may contribute to unreasonable treatment dropout rates (Reid et al., 2017). Notably, it is developmentally appropriate for children to require parental prompting in the use of coping strategies in treating OCD symptoms. For some older youth, appropriate strategies may include adopting an MI approach. Considering the developmental level and evidence-based guidelines is important for utilizing cognitive-behavioral components to bolster ERP work with children.

Challenge: Access

Although the connection between effective exposure implementation and treatment outcomes for obsessive-compulsive and anxiety disorders is clear, lack of psychologist training and confidence in the implementation of treatment creates significant barriers to patient access to evidence-based services. Common barriers to evidence-based treatment include lengthy wait lists, lack of culturally competent providers, expense, limited availability of trained providers (particularly in rural communities), anonymity concerns in rural and small-town settings, and travel burden to urban centers where evidence-based providers are most likely to practice. Research has long shown that communities of color are less likely to have access to the best available psychotherapeutic treatments for a variety of mental health problems (e.g., McGuire & Miranda, 2008). Although OCD occurs at roughly equal rates across race and ethnicity, the barriers to effective care are more pronounced in populations of color, with both clinical research and practice disproportionately failing to represent populations that are racially or economically underrepresented (Freeman et al., 2018).

Moreover, half of psychologists who see children indicate a lack of training in these treatments, which is a barrier to offering evidence-based treatments (Reid et al., 2017). This barrier is particularly relevant given that anxiety disorders are the most common mental health disorders of childhood. The prevalence of anxiety and OCD symptoms in childhood highlights the need for the purposeful integration of evidence-based anxiety and OCD treatment training into mental health provider training programs at all levels, with a particular emphasis on treating populations that are disproportionately underserved or underrepresented. For psychologists who do not offer ERP as a specific treatment, comprehensively assessing symptoms of OCD, understanding the utility of the modality, and building referral networks of providers who offer evidence-based treatment for OCD (especially for children and families) is of particular importance.

Conclusion

Although ERP may initially appear to be a simple, straightforward treatment approach, effective implementation is complex in real-world settings. The challenges of implementing ERP are even more substantial for the treatment of young children and families. Motivating children and parents, managing common comorbidities in children (e.g., attention-deficit/hyperactivity disorder, anxiety disorders, tic disorders, and oppositional defiant disorder), and effectively responding to challenging child behaviors requires a psychologist to have a substantial skill set. This skill set includes a deep understanding of the mechanisms of cognitive behavioral, ERP, and PMT interventions for the treatment of childhood-onset OCD.

For Daisy, the 7-year-old child in our clinical vignette, psychoeducation regarding OCD symptoms and functions of behavior may help her parents better understand the role they play in shaping her obsessions and compulsions, and associated behaviors. Use of PMT interventions may also improve parental skills to better address behavioral concerns without accommodating obsessions and compulsions. The focus on parental implementation of exposures as the primary driver of behavioral change for younger children is particularly important. A clear and effective hierarchy development process with significant family collaboration is key to clarifying treatment goals in the presence of clinically significant concerns, and parental stress. Finally, the use of metaphor and a reward system is likely to be helpful in motivating Daisy's participation in exposures. Ultimately, children like Daisy show significant progress with evidence-based OCD treatment while in the care of a skilled psychologist.

Key Clinical Considerations

- Significant benefit is derived from ERP for children with OCD and other serious anxiety-related concerns and their families.
- Refining parental responses to OCD symptoms and behaviors in children can diminish the frequency and severity of problematic OCD behaviors (e.g., avoid helping with or participating in the behavior or making changes in the family routine to accommodate the behavior).
- Incorporating parents into treatment (e.g., using evidence-based parent management training [PMT] strategies) is developmentally appropriate for preschool and early elementary school aged children.
- ERP may require some creative evidence-based strategizing to ensure developmental appropriateness for this age group. For example, use of an “anxiety monster” metaphor may enhance child motivation.

Funding No funding was used in the preparation of this manuscript.

Declarations

Conflict of Interest The authors declare no conflict of interest.

References

- Abramowitz, J. S., Deacon, B. J., Olatunji, B. O., Wheaton, M. G., Berman, N. C., Losardo, D., Timpano, K. R., McGrath, P. B., Riemann, B. C., Adams, T., Björgvinsson, T., Storch, E.A., & Hale, L. R. (2010). Assessment of obsessive-compulsive symptom dimensions: Development and evaluation of the Dimensional Obsessive-Compulsive Scale. *Psychological Assessment*, 22(1), 180–198. <https://doi.org/10.1037/a0018260>
- Abramowitz, J. S., Foa, E. B., & Franklin, M. E. (2003). Exposure and ritual prevention for obsessive-compulsive disorder: Effects of intensive versus twice-weekly sessions. *Journal of Consulting and Clinical Psychology*, 71(2), 394–398. <https://doi.org/10.1037/0022-006X.71.2.394>
- American Psychiatric Association. (2022). *Diagnostic and statistical manual of mental disorders* (5th ed., text rev.). American Psychiatric Publishing, Inc.
- Bor, W., Sanders, M. R., & Markie-Dadds, C. (2002). The effects of the Triple P-Positive Parenting Program on preschool children with co-occurring disruptive behavior and attentional/hyperactive difficulties. *Journal of Abnormal Child Psychology*, 30(6), 571–587. <https://doi.org/10.1023/a:1020807613155>
- Choate-Summers, M. L., Freeman, J. B., Garcia, A. M., Coyne, L., Przeworski, A., & Leonard, H. L. (2008). Clinical considerations when tailoring cognitive behavioral treatment for young children with obsessive compulsive disorder. *Education & Treatment of Children*, 31(3), 395–416. <https://doi.org/10.1353/etc.0.0004>
- Craske, M. G., Treanor, M., Conway, C. C., Zbozinek, T., & Vervliet, B. (2014). Maximizing exposure therapy: An inhibitory learning approach. *Behaviour Research and Therapy*, 58, 10–23. <https://doi.org/10.1016/j.brat.2014.04.006>
- Foa, E. B., Grayson, J. B., Steketee, G. S., Doppelt, H. G., Turner, R. M., & Latimer, P. R. (1983). Success and failure in the behavioral treatment of obsessive-compulsives. *Journal of Consulting and Clinical Psychology*, 51(2), 287–297. <https://doi.org/10.1037/0022-006X.51.2.287>
- Franklin, M. E., Freeman, J. B., & March, J. S. (2019). *Treating OCD in children and adolescents: A cognitive-behavioral approach*. Guilford.
- Freeman, J., Benito, K., Herren, J., Kemp, J., Sung, J., Georgiadis, C., Arora, A., Walther, M., & Garcia, A. (2018). Evidence base update of psychosocial treatments for pediatric obsessive-compulsive disorder: Evaluating, improving, and transporting what works. *Journal of Clinical Child and Adolescent Psychology*, 47(5), 669–698. <https://doi.org/10.1080/15374416.2018.1496443>
- Freeman, J. B., Choate-Summers, M. L., Moore, P. S., Garcia, A. M., Sapyta, J. J., Leonard, H. L., & Franklin, M. E. (2007). Cognitive behavioral treatment for young children with Obsessive-Compulsive Disorder. *Biological Psychiatry*, 61(3), 337–343. <https://doi.org/10.1016/j.biopsych.2006.12.015>
- Freeman, J., Garcia, A., Benito, K., Conelea, C., Sapyta, J., Khanna, M., March, J., & Franklin, M. (2012). The Pediatric Obsessive Compulsive Disorder Treatment Study for Young Children (POTS Jr.): Developmental considerations in the rationale, design, and methods. *Journal of Obsessive-Compulsive and Related Disorders*, 1(4), 294–300. <https://doi.org/10.1016/j.jocrd.2012.07.010>
- Freeman, J., Sapyta, J., Garcia, A., Compton, S., Khanna, M., Flessner, C., FitzGerald, D., Mauro, C., Dingfelder, R., Benito, K., Harrison, J., Curry, J., Foa, E., March, J., Moore, P., & Franklin, M. (2014). Family-based treatment of early childhood obsessive-compulsive disorder: The pediatric obsessive-compulsive disorder treatment study for young children (POTS Jr)—A randomized clinical trial. *JAMA Psychiatry*, 71(6), 689–698. <https://doi.org/10.1001/jamapsychiatry.2014.170>
- Garcia, A. M., Freeman, J. B., Himle, M. B., Berman, N. C., Ogata, A. K., Ng, J., Choate-Summers, M. L. & Leonard, H. (2009). Phenomenology of early childhood onset Obsessive Compulsive Disorder. *Journal of Psychopathology and Behavioral Assessment*, 31, 104–111. <https://doi.org/10.1007/s10862-008-9094-0>
- Law, C. & Boisseau, C. L. (2019). Exposure and response prevention in the treatment of Obsessive-Compulsive Disorder: Current perspectives. *Psychology Research and Behavior Management*, 12, 1167–1174. <https://doi.org/10.2147/PRBM.S211117>
- Lewin, A. B., Park, J. M., Jones A. M., Crawford, E. A., De Nadai, A. S., Menzel, J., Arnold, E. B., Murphy, T. K., & Storch, E. A. (2014). Family-based exposure and response prevention therapy for preschool-aged children with obsessive-compulsive disorder: A pilot randomized controlled trial. *Behavior Research and Therapy*, 56, 30–38. <https://doi.org/10.1016/j.brat.2014.02.001>
- McGuire, T. G., & Miranda, J. (2008). New evidence regarding racial and ethnic disparities in mental health: policy implications. *Health Affairs*, 27(2), 393–403. <https://doi.org/10.1377/hlthaff.27.2.393>
- Meier, S. M., Petersen, L., Schendel, D. E., Mattheisen, M., Mortensen, P. B., & Mors, O. (2015). Obsessive-Compulsive Disorder and Autism Spectrum Disorders: Longitudinal and offspring risk. *PLoS one*, 10(11), e0141703. <https://doi.org/10.1371/journal.pone.0141703>
- Metcalfe, R. E., Matulis, J. M., Cheng, Y., & Stormshak, E. A. (2021). Therapeutic alliance as a predictor of behavioral outcomes in a relationally-focused, family-centered telehealth intervention. *Journal of Marital and Family Therapy*, 47(2), 473–484. <https://doi.org/10.1111/jmft.12517>
- Öst, L., Riise, E. N., Wergeland, G. J., Hansen, B., & Kvale, G. (2016). Cognitive behavioral and pharmacological treatments of OCD in children: A systematic review and meta-analysis. *Journal of Anxiety Disorders*, 43, 58–69. <https://doi.org/10.1016/j.janxdis.2016.08.003>

- Plaisted, H., Waite, P., Gordon, K., & Creswell, C. (2021). Optimising exposure for children and adolescents with anxiety, OCD and PTSD: A systematic review. *Clinical Child and Family Psychology Review*, 24(2), 348–369. <https://doi.org/10.1007/s10567-020-00335-z>
- Reid, A. M., Bolshakova, M. I., Guzick, A. G., Fernandez, A. G., Striley, C. W., Geffken, G. R. & McNamara, J. P. (2017). Common barriers to the dissemination of exposure therapy for youth with anxiety disorders. *Community Mental Health Journal*, 53, 432–437. <https://doi.org/10.1007/s10597-017-0108-9>
- Scahill, L., Riddle, M. A., McSwiggin-Hardin, M., Ort, S. I., King, R. A., Goodman, W. K., Cicchetti, D., & Leckman, J. F. (1997). Children's Yale-Brown Obsessive Compulsive Scale: Reliability and validity. *Journal of the American Academy of Child and Adolescent Psychiatry*, 36(6), 844–852. <https://doi.org/10.1097/00004583-199706000-00023>
- Stormshak, E. A., DeGarmo, D., Garbacz, S. A., McIntyre, L. L., & Caruthers, A. (2021). Using Motivational Interviewing to improve parenting skills and prevent problem behavior during the transition to kindergarten. *Prevention Science*, 22(6), 747–757. <https://doi.org/10.1007/s11121-020-01102-w>
- Stormshak, E. A., Kennedy, A. L., Metcalfe, R. E., & Matulis, J. M. (2022). Using the Family Check-Up to support social and behavioral adjustment in early elementary school. In K. L. Bierman & S. M. Sheridan (Eds.), *Family-school partnerships during the early school years: Advancing science to influence practice* (pp. 73–90). Springer. https://doi.org/10.1007/978-3-030-74617-9_5
- Webster-Stratton, C. (2005). The Incredible Years: A training series for the prevention and treatment of conduct problems in young children. In E. D. Hibbs & P. S. Jensen (Eds.), *Psychosocial treatments for child and adolescent disorders: Empirically based strategies for clinical practice* (pp. 507–555). American Psychological Association.
- Robyn E. Metcalfe**, MS, is a Counseling Psychology PhD student at the University of Oregon. Her research interests focus on evidence-based strategies to support effective parenting behaviors for families of children with mental health or behavioral concerns.
- Preeti Pentel**, MA, is a Clinical Psychology PsyD student at Pacific University. Her research and clinical interests focus on effective strategies to treat anxiety disorders in pediatric populations, including in the context of complex medical concerns.
- Danny C. Duke**, PhD, is a licensed psychologist, an Associate Professor of Pediatrics at Oregon Health and Sciences University (OHSU), and the director of the OHSU Anxiety Treatment Clinic. His research centers on treatment of obsessive-compulsive disorder and the anxiety disorders, as well as type 1 diabetes management.