

Intensive community-based exposure with response prevention for children and adolescents with severe and complex obsessive-compulsive disorder

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Abstract

Background

Despite strong evidence for paediatric obsessive-compulsive disorder (OCD) treatment, children and adolescents with OCD do not typically receive these treatments at an adequate dose or fidelity. Children and adolescents with OCD are over-represented in hospital admission frequency and duration of stay yet have high readmission rates after discharge. Children with severe or complex OCD and co-occurring conditions who may have previous hospitalisations are often under-represented in research trials of psychological therapy.

Methods

This study examined the effectiveness of an 8-week community-based program including intensive exposure with response prevention (CBT-ERP) (2 weeks of monitoring and engagement, 2 weeks of intensive CBT-ERP, and 4 weeks of maintenance) for children with severe and complex OCD. Outcomes were evaluated for eleven children and adolescents (9 female) aged 10 to 17 years ($M = 14.82$; $SD = 2.27$) with severe or extreme OCD, using a multiple baseline design for the primary outcome measure of OCD symptom severity. Non-parametric and descriptive analyses evaluated secondary outcomes of family accommodation, functional impairment and hospital admission rates.

Results

There were significant large treatment effects on OCD symptoms (clinician, parent, child-rated) and family accommodation (parent-rated), and a moderate effect on functioning (parent-rated). Between 54 – 27% of participants responded to treatment, depending on the rater, and 18–20% were remitters. No participants were hospitalised during treatment or 28 days after treatment.

Conclusions

In line with least-restrictive practice frameworks, this intensive CBT-ERP program was a suitable alternative to hospitalisation to provide effective and high-quality evidence-based treatment in the community for children with severe OCD.

Introduction

Obsessive-compulsive disorder (OCD) is often extremely debilitating, impacting school, home, family and friendships and significantly reducing quality of life (Coluccia et al., 2017; Piacentini et al., 2007; Weidle et al., 2014). Severe symptoms and functional impairment sometimes require inpatient hospitalisation, although severity alone does not warrant admission. Hospital admission is reserved for acute risk containment, multidisciplinary observation for diagnostic clarity, or medical assessment which is infeasible in general medical settings due to psychiatric comorbidity (Perkes et al., 2019). Hospital admission is generally not indicated, or required, for a full course of psychological treatment. Further, admissions carry risks including separation from community, vicarious traumatisation, adoption of witnessed maladaptive behaviours, stigmatisation, and regression (Edwards et al., 2015; Perkes et al., 2019). Moreover, admissions for OCD are typically prolonged despite having poor outcomes. For example, in two Australian and one Turkish paediatric mental health inpatient units, patients with OCD had the longest or second longest length of stay (23 days and 44 days, respectively) alongside or behind psychotic disorders yet were frequently readmitted within 28 days of discharge (Dyason et al., 2023) or were unimproved following admission (Merve et al., 2023). In contrast, patients with OCD in a Japanese paediatric inpatient unit achieved greater symptom improvement than those with psychosis, but this was required a substantial length of stay at 11-months (Setoya et al., 2011).

Even for severe OCD, the recommended first-line treatment is cognitive-behavioural therapy (CBT) with exposure with response prevention (ERP), with selective serotonin reuptake inhibitors (SSRI) augmenting treatment if necessary (McGuire et al., 2015; Öst et al., 2016). CBT-ERP is highly effective, with a large effect size across clinical trials: 70% of children and adolescents achieve treatment response (i.e., clinically significant symptom reduction), and 60% achieve symptom remission (i.e., no/sub-clinical OCD; McGuire et al., 2015).

CBT-ERP is best delivered in the community and home with family involvement (Selles et al., 2021), which is challenging in an inpatient setting. Intensive outpatient programs are becoming increasingly common alternatives to inpatient admissions across conditions and equally as effective, but with reduced costs, greater patient satisfaction and shorter hospitalisations in future, if required (Kwok et al., 2016). For OCD, there is growing evidence for the effectiveness of intensive CBT-ERP programs for children (Canavera et al., 2022; Farrell et al., 2016; Farrell et al., 2022; Selles et al., 2021; Trent et al., 2025), which are a step-down from partial hospitalisation/day-patient programs and residentials, which are themselves a step-down from inpatient admissions (Trent et al., 2025). Brief and intensive CBT-ERP may expedite treatment response and reduce waitlist duration (Trent et al., 2025).

Yet children who are hospitalised are typically excluded from randomised controlled trials (RCTs) and even implementation studies, due to severity of symptoms or co-occurring conditions. For example, in both the POTS and NORDLots trials (the first large-scale RCT comparing CBT-ERP with SSRIs, and the largest trial of CBT-ERP in routine community care, respectively), children were excluded for reasons including severe depression or autism (POTS team, 2004; Thomsen et al., 2013), despite both commonly co-occurring with OCD (Sharma et al., 2021). Further, there is often a self-selection bias in university-based clinical trials: individuals and families with a nuclear family structure, in an ethnic majority, higher SES, more educated, less burdened with caregiving responsibilities, or are more motivated are more likely to enrol and stay in research trials than those in more severe or crisis contexts (e.g., Bixio et al., 2021; Kekkonen et al., 2015; Nathe et al., 2022; Robinson et al., 2016; Williams et al., 2010). CBT-ERP is also less likely to be pursued for severe illness. For instance,

among 185 children with severe refractory OCD, 94% had received previous mental health treatment but only 37% received prior exposure-based therapy (Garcia et al., 2023).

As community-based intensive CBT-ERP as a step-down from hospital is relatively untested for severe paediatric OCD, we evaluated the effectiveness of a brief and intensive community-based CBT-ERP program embedded in extant health services as part of a pilot hybrid Type 2 (Curran et al., 2012) implementation-effectiveness trial (for trial design see Perkes et al., 2022; for implementation outcomes see Dyason et al., 2025, 2026; McAdams et al., 2026; Racz et al., 2025). It was hypothesised that following a stable baseline phase, after receiving the intensive CBT-ERP intervention participants would experience: (1) significantly reduced OCD symptom severity, family accommodation, and child functional impairment, and; (2) remain in the community (i.e. not be admitted to hospital) for the duration of the program and 28 days after.

Methods

Setting

A quaternary OCD service was established at a children's hospital in 2022, as part of a pilot Type 2 implementation-effectiveness trial (Curran et al., 2012) of a model of care for paediatric OCD in one local health district in metropolitan Australia (Perkes et al., 2022). The broader trial was pre-registered (osf.io/hvtr2) with ethics approval. The OCD team included a child and adolescent psychiatrist, clinical nurse consultant, clinical psychologist, and psychology/medical students. The OCD team builds capacity in community mental health teams to detect, assess and treat mild to moderate OCD; and offers case consults, assessments and intensive treatment for severe and complex OCD. Referrals come from child and adolescent mental health services (CAMHS) and other affiliated services (e.g. Headspace) in the local health district covering 468km² with 167,377 children aged 0–17 years (NSW Department of Planning and Environment, 2022). Using a 2% prevalence rate and excluding 0–4 years, there are an estimated 2394 children per year with OCD in the catchment.

In Australia, mental health services are split between private and public (Australian Institute of Health and Welfare, 2016). CAMHS are public (no cost to patients) multidisciplinary mental health services for moderate to severe cases which are too complex to be managed by private mental health clinicians due to severity, risk, financial or resource constraints (Diminic, et al., 2023). Headspace is a primary care provider of brief, early intervention to young people aged 12–24 for subclinical and mild mental health conditions (McGorry et al., 2007). Headspace operates as a not-for-profit organisation, providing free sessions funded by government rebates or non-government organisations, typically up to 10 sessions annually. There are no OCD-specific day programs, partial hospitalisation programs (PHPs), nor OCD-specialty inpatient units in Australia.

Participants

Figure 1 shows the participant flow for 77 children and adolescents referred to the OCD team for assessment, including consideration of the intensive CBT-ERP program. The intensive program was considered if the patient had (1) severe or extreme OCD, and (2) their treating team were: (a) considering hospitalisation for OCD symptoms; (b) considered the child nonresponsive to standard weekly CBT-ERP (including CBT-ERP groups as part of the broader model of care); and/or (c) there were complexities implementing CBT-ERP in a non-specialised setting. Relative contraindications to completing the program included: untreated psychotic symptoms, active suicidality with an inability to maintain safety in the community, medical instability (e.g., malnutrition), or moderate-severe-profound intellectual disability precluding CBT-ERP.

Eleven children and adolescents (2 male, 9 female) aged 10–17 years ($M = 14.82$; $SD = 2.27$) completed the intensive CBT-ERP program and provided written consent for data to be used for research (Table 1). Two further adolescents completed the program but did not consent to research. All participants had a primary diagnosis of “severe” or “extreme” OCD using the CY-BOCS ($M = 29.82$; $SD = 2.92$; $range = 25–35$). The average age of OCD onset was eight years old ($M = 8.91$; $SD = 3.36$; $range = 3–14$ years) and almost six years of symptoms prior to referral ($M = 5.91$; $SD = 4.35$; $range = 1–13$ years). Five participants reported OCD symptoms had been substantial enough to lead to either reduced academic load ($n = 3$) or distance (home-based) education owing to inability to attend school in person ($n = 2$). Eight had additional comorbid diagnoses ($M = 1.91$; $SD = 1.73$, $range = 0–5$ co-occurring mental health/neurological diagnoses) including attention-deficit hyperactivity disorder ($n = 3$), depression ($n = 3$), eating disorders ($n = 3$) and social anxiety disorder ($n = 3$). Three participants had previous mental health inpatient admissions and seven reported at least some CBT-ERP previously. Eight participants were taking psychotropic medications. One participant changed medications during treatment, and one added a medication during treatment.

Table 1
Demographic, Diagnostic and Treatment History Information for Each Participant

Participant	Age	Gender	Comorbid Diagnoses	Psychotropic Medications	Previous ERP?	Previous Inpatient?	Schooling	Onset Age
1	16	female	None	None	Yes	No	Standard	8
2	16	female	Anorexia nervosa	clomipramine, olanzapine	No	Yes	Distance Education	12
3	16	female	Tourette, ADHD, Trichotillomania	fluvoxamine, Ritalin, clonidine	Yes	No	Standard	3
4	14	female	PANS	clomipramine, IVIg	No	Yes	Standard	10
5	13	male	Depression, EDNOS, ADHD, Tourette	fluvoxamine, olanzapine, stimulant (unknown)	Yes	No	Standard	11
6	16	female	Social Anxiety	None	No	No	Distance Education	5
7	16	male	Social Anxiety, ARFID	None	No	No	Standard	11
8	10	female	None	sertraline, added olanzapine during treatment	Yes	No	Standard	9
9	17	female	Autism, epilepsy, depression, GAD	fluoxetine, lamotrigine	Yes	No	Reduced academic load	14
10	17	female	Depression, GAD, social anxiety, autism, ADHD	sertraline, paliperidone changed to clomipramine during treatment	Yes	No	Reduced academic load	5
11	12	female	None	fluoxetine	Yes	No	Reduced academic load	10
Notes. ADHD=attention-deficit hyperactivity disorder, PANS=paediatric acute-onset neuropsychiatric syndrome, EDNOS=eating disorder not otherwise specified, GAD=generalised anxiety disorder, IVIg=intravenous immunoglobulin								

Measures

The primary outcome (pre-post) and weekly symptom measure was the Children's Yale-Brown Obsessive-Compulsive Scale (CY-BOCS; Scahill et al., 1997). It is a semi-structured interview comprising a symptom checklist and two 5-item rating scales assessing symptom severity of both obsessions and compulsions, rated by parent, child and clinician. The CY-BOCS is delivered concurrently to the child and parent, following which the clinician also completes ratings. The obsession and compulsion subscales can be summed to produce a total score (between 0 to 40). Higher scores indicate more severe OCD. It is the gold-standard measure for assessing OCD symptoms in children and adolescents (Greenberg & Geller, 2019) with good reliability and validity (Scahill et al., 1997).

The Children's Obsessive-Compulsive Impact Scale, Revised (Peris & Piacentini, 2016; COIS-R) was a secondary outcome measure. It is a 33-item measure of impact from a child's OCD in the past month. There are parallel child- and parent-report versions, which are both reliable and valid (Piacentini et al., 2007). Items are rated from 0 (not at all) to 3 (very much), with higher scores indicating greater impact. There are four sub-scales on the parent-report version (school, family/activities, social, and daily living skills) and three sub-scales on the youth-report version (school, social and activities). For the current study, total scores were created by summing subscales for the parent-report and child-report respectively.

Part II of the Family Accommodation Scale for Obsessive-Compulsive Disorder Self-rated version (Pinto et al., 2013; FAS-SR) was a secondary outcome measure. It is a 19-item measure of the frequency of family accommodation of OCD in the past week, completed by a family member. Items are rated from 0 (no days this week) to 4 (every day). Higher scores indicate greater accommodation. The FAS-SR has excellent reliability and good validity (Pinto et al., 2013).

Additional Variables

Collected participant demographic, diagnostic and treatment history data included: age, gender, ethnicity, comorbid diagnoses, current psychotropic medications, previous CBT-ERP (yes/no), previous mental health inpatient admission (yes/no), current schooling, age of onset of OCD, and hospital admissions within 28 days of completing the intensive program (secondary outcome measure), as per key performance indicators for Australian public mental health services (NMHPSC, 2013; NSW Ministry of Health, 2015). Collected treatment data included: therapist adherence to treatment manual (session checklist), name of clinician(s) providing treatment, parent involvement in treatment (0 = none, 3 = all sessions), homework completed (0 = none, 3 = all) and number of home/school visits.

Procedure

Referrals were from public CAMHS services ($n = 7$), Headspace ($n = 3$) or a private multidisciplinary team ($n = 1$). The intensive program was delivered as an augmentation to ongoing treatment through CAMHS/Headspace: participants were case managed by their existing treating teams throughout the intensive program. The OCD team completed a clinical assessment and diagnostic interview to determine suitability for the intervention; see Participants section. Diagnosis was confirmed by either a semi-structured interview using the Anxiety Disorders Interview Schedule for DSM-5, parent version (ADIS-5; Kerns et al., 2024), administered by clinical psychologist (KMD, SMC); or a clinical interview with an experienced child and adolescent psychiatrist (IEP).

The OCD Busters Intensive Program has empirical support from a randomised multiple-baseline controlled trial (Farrell et al, 2016) and a larger clinical trial (Farrell et al., 2022). All participants received the same treatment over three phases: monitoring and engagement; brief and intensive CBT-ERP; and maintenance (Table 2 for details of sessions). At least one parent was expected to attend every session. One or two sessions were conducted as a home visit or other relevant community setting, e.g., school. In addition to scheduled sessions, participants were expected to complete at least four ERP tasks as homework each day.

Table 2
Overview of the intensive program treatment and assessment schedule, delivered over 8 weeks.

Assessment	Phase	Duration	Schedule	Format	Content	Assessments
	Multidisciplinary assessment	One day	1x 2-hr assessment (may not be immediately preceding monitoring)	In-person	Comprehensive multidisciplinary assessment and medication review	COIS, FAS, ADIS-5/ diagnostic assessment
	Monitoring	Two weeks	2x 30 min phone calls, one per week	Telephone	Symptom monitoring, contracting to the program	CY-BOCS rating scales
Treatment	Intensive ERP	Two weeks	1x initial 3-hr session	In-person	Complete CY-BOCS, provide psychoeducation, make initial hierarchies for ERP tasks	Full CY-BOCS, including checklist
			3 x 3-hr sessions, one or two per week	In-person, 1–2 home visits	ERP tasks <i>Homework:</i> 4x ERP tasks scheduled every day on non-treatment days	CY-BOCS rating scales
	Maintenance	Four weeks	4x 1-hour sessions, one per week	Video call	Completing ERP tasks, ensuring ongoing practice outside of sessions, troubleshooting <i>Homework:</i> 4x ERP tasks scheduled every day on non-treatment days	CY-BOCS rating scales
				Video call	Final assessment, at end of last maintenance session	Full CY-BOCS, COIS, FAS,

Treatment was provided by a clinical psychologist ($n = 10$ participants) or clinical nurse consultant ($n = 1$ participants) as the primary clinician; a second clinician training in intensive CBT-ERP co-facilitated treatment for six participants. The CY-BOCS was completed weekly by the treating clinician. The COIS and FAS were completed immediately prior to or during the baseline phase and at the final maintenance session. To enable ongoing CBT-ERP treatment after discharge from the intensive program, the client's regular treating clinician (e.g. CAMHS) was invited to attend at least one intensive session, and handover was provided at discharge.

Statistical Analysis

Analyses were conducted using SPSS v27 and Microsoft Excel. To analyse symptom change across sessions for the primary outcome measure (CY-BOCS ratings), a nonconcurrent 2-week baseline single-case design was used, as recommended for a controlled examination of efficacy of a novel intervention (Kazdin, 1998). A multiple baseline design treats each subject as their own control, comparing symptoms during intervention (B) to the baseline (A) to demonstrate a functional relationship between the treatment and the outcome. Individual case series data were captured weekly across: two baseline measurement points were taken from the 2-weeks of monitoring (A), and six measurement points were taken during active treatment (B; 2 weeks of intensive ERP, 4 weeks of maintenance). To supplement visual analysis, improvement rate difference was calculated per participant, then averaged across participants (Parker et al., 2009; Wolfe et al., 2019), with classifications of low, moderate, large and very large size of treatment effects (Parker et al. (2009). Reliability between child-, parent-, and clinician-report was calculated per timepoint using intraclass correlation coefficients.

To analyse symptom change from pre- to post-treatment, non-parametric Wilcoxon Sign-Rank Tests were employed due to the small sample size. CY-BOCS pre-treatment score was defined as the average of the two baseline data points. For all measures, post-treatment score was defined as the datapoint from the final session. Effect size was calculated as $r = Z/\sqrt{n}$; effect size classifications of small, medium and large were based on Cohen (1988). Reliable and clinically significant change indices were calculated based on Jacobson & Truax (1991), using Y-BOCS normative data from Steketee et al (1996; $M = 7.2$, $SD = 4.5$, test–retest reliability = 0.88) as per Abramowitz et al (2005) and using a cut-off of 1.96 to determine significance. The clinical cut-off used to evaluate clinically significant change was two standard deviations from the pre-treatment mean (Jacobson & Truax, 1991): a CY-BOCS score of 24 at post-treatment for clinician-ratings, 22 for parent-ratings or 23 for child-ratings. Participants were considered “responders” if they experienced $\geq 35\%$ change from pre- to

post-treatment on their CY-BOCS scores or “remitters” if they had a post-treatment score ≤ 12 (Farhat et al., 2022). Participants were considered to have an “excellent response” if they had ≤ 10 point reduction in CY-BOCS scores from pre- to post-treatment (Pediatric OCD Treatment Study Group, 2004).

Results

Symptom Change Across Treatment

Figure 2 shows the multiple baseline data for each participant on the CY-BOCS over baseline (monitoring phase) and treatment (intensive CBT-ERP and maintenance phases), for child-, parent- and clinician-ratings. Visual inspection generally shows stability over the baseline period, with decline on scores over treatment, predominantly during the maintenance phase. There was substantial concordance between child-, parent- and clinician-rated scores, with intraclass correlations at each time point ranging from .70 to .96 ($M=.89$, $SD=.09$).

Figure 3 shows the average scores across participants at each time point. The mean improvement rate difference across clinician-rated scores was .75 ($SD=.32$; $range=.00-1.00$), indicating a large positive non-random treatment effect. Similarly, the mean improvement rate difference across parent-rated scores was .76 ($SD=.17$, $range=.50-1.00$; $n = 10$) and .73 ($SD=.21$; $range=.29-1.00$) across child-rated scores, indicating large positive non-random treatment effects.

Pre-Post Treatment Effectiveness

Primary Outcome

There was a significant large reduction in symptoms from pre- to post-treatment for clinician-rated ($Z=-2.85$, $p = 0.004$, $r=-.61$), parent-rated ($Z=-2.80$, $p = 0.005$, $r=-.61$), and child-rated ($Z=-2.94$, $p = 0.003$, $r=-.63$) CY-BOCS scores. Table 3 shows pre- and post-treatment scores on the CY-BOCS and Table 4 shows the rates of improvement per rater, based on different criteria of improvement (e.g. response, remission, reliable change).

Table 3
Descriptive Data for Outcome Measures from Pre- to Post-Treatment

	Pre-Treatment		Post-Treatment		Change	
	Range	M (SD)	Range	M (SD)	Range	M (SD)
CY-BOCS – Clinician Rated	25 (severe) – 35 (extreme)	29.82 (2.92)	9 (mild) – 34 (extreme)	18.91 (6.99)	-1–22	10.95 (7.31)
CY-BOCS – Parent Rated	24 (severe) – 32 (extreme)	27.68 (2.88)	9 (mild) – 27 (severe)	17.30 (5.60)	2–20	9.95 (6.18)
CY-BOCS – Child Rated	25 (severe) – 34 (extreme)	28.27 (2.66)	9 (mild) – 27 (severe)	18.91 (6.12)	2–23	9.36 (7.26)
COIS Total – Parent Rated	16–80	57.40 (19.52)	11–97	35.22 (25.51)	-17–49	20 (21.28)
COIS Total – Child Rated	15–88	57.00 (28.40)	22–75	44.56 (18.82)	-39–41	4.25 (23.55)
FAS – Parent Rated	10–76	45.30 (24.38)	5–76	23.33 (22.81)	-3–38	18.56 (15.84)
Number of Hospital Admissions	During Program	0	Within 28 Days	0	Post-treatment	

Table 4
Number and percentages of clients meeting different definitions of significant improvement in treatment, by reporter (clinician, parent or child).

Rates of:	Clinician-rated (n = 11)		Parent-rated (n = 10)		Child-rated (n = 11)	
Treatment Responders	6	(55%)	5	(50%)	3	(27%)
Treatment Remitters	2	(18%)	2	(20%)	2	(18%)
Reliable Improvement	10	(91%)	8	(80%)	9	(82%)
Reliable and Clinically Significant Improvement	8	(73%)	8	(80%)	8	(73%)
Reliable deterioration	0	(0%)	0	(0%)	0	(0%)
“Excellent Response”	2	(18%)	1	(10%)	2	(18%)

Note: one parent did not complete post-treatment CY-BOCS ratings. See Method for definitions of categories.

Secondary Outcomes

There was a significant large reduction in family accommodation from pre- to post-treatment on the FAS ($Z=-2.55$, $p = 0.011$, $r=-.56$) and a significant moderate reduction in OCD functional impact from pre- to post-treatment for parent-rated ($Z=-2.19$, $p = 0.028$, $r=-.48$), but not child-rated ($Z=-1.82$, $p = 0.069$, $r=-.42$) COIS scores (Table 3). Further, no participants were hospitalised during the intensive program or within 28 days after completion.

Fidelity, Acceptability and Feasibility

Therapist adherence to treatment was high, with an average of 91% of scheduled activities completed ($SD = 6.99$; $range = 74.40-98.61\%$). Parents were involved throughout treatment: one participant (9%) had parental involvement at some sessions (between 1–4 sessions), five participants (45%) had parental involvement at most sessions (5–7 sessions), and 5 participants (45%) had parental involvement for all sessions. Participants were generally completed homework: one participant (9%) completed no homework, two (18%) completed some, four (36%) completed most, and four (36%) completed all homework set (4x ERP tasks every day for 6 weeks). Home visits were completed for every participant at least once. No participants discontinued treatment. No sessions were missed, some were rescheduled, e.g., due to illness. Three clients had extra symptom check-ins when sessions were rescheduled.

Discussion

The intensive CBT-ERP program had a significant large effect on OCD symptoms and family accommodation, and a moderate effect on functioning. Although most (73–80%) participants experienced reliable and clinically significant change, response and remission rates were more moderate given the level of severity at pre-treatment. No participants were admitted to hospital during the intensive program or within 28 days after completion. Health service data analysis showed that during the period that the intensive program was being run, hospital admissions for OCD were reduced at the local inpatient unit, whereas they remained stable at other inpatient units across the state, indicating that hospital admissions were reduced due to the intensive program being implemented (McAdams et al., 2026). Thus, all hypotheses were supported.

The program effectiveness is particularly striking given the severity and complexity of this cohort, and that several (27%) had previous inpatient admissions for OCD. At commencement, all participants had severe-to-extreme symptoms, with illness duration averaging 6 years. Most had co-occurring conditions, and symptoms so impairing that schooling was either part-time or by distance education. Nevertheless, there was a large effect size in only 6 weeks of active treatment, with response rates approximating controlled clinical trials with restrictive inclusion/exclusion criteria. For example, in a university trial of intensive CBT-ERP using the same treatment manual and session schedule, response and remission rates were near-identical, with 47–58% response rate and 21–28% remission rate, depending on rater (Farrell et al., 2022). In a 5-day intensive CBT-ERP program, 62% of children responded and 12% remitted (Canavera et al., 2023). In a meta-analysis of paediatric CBT treatment, the response and remission rates of 68% and 57%, respectively, were higher than the current study (McGuire et al., 2015). However, average severity on the CY-BOCS at pretreatment ranged from 22.1 to 27.7 across studies ($M = 24.1$) in the meta-analysis, which was lower than the average severity of 29.8 in the current study. Additionally, the two comparable intensive treatment studies (Canavera et al., 2023; Farrell et al., 2022) and meta-analysis (McGuire et al., 2015) used older calculations for response and remission (Storch et al., 2010), which were more modest than the calculations used in the current study. Using Storch et al. (2010) calculations for the current data, two additional participants would have been considered responders, and one additional participant would have been a remitter.

Regardless, given the brevity of the 6-week intervention and severity of symptoms, it is unsurprising that the full remission rate is lower than other studies which may be completed over 15 + weeks with a less severe cohort. An even briefer 5-day program showed similar response rates to the current study, but similarly, lower remission rates (Canavera et al., 2023). Remission rates often continue to increase following treatment (Canavera et al., 2023; Farrell et al., 2021; Ivarsson et al., 2024) and thus, while intensive programs may initially achieve lower remission rates, these improve over time as children have more time to practice and consolidate skills. This aligns with the design of our intensive program as a treatment augmentation, with participants continuing in active treatment with their community treatment team after concluding the intensive program.

The intensive program was feasible in a public health setting, with sessions delivered flexibly within the home, clinic or school environments, but with high fidelity and no drop-out. In follow-up qualitative interviews, referring services expressed satisfaction with the program as a suitable option for their complex clients and as learning opportunity for themselves (Dyason et al., 2026). This may prove to be an additional avenue for upskilling and better equipping community clinicians to deliver CBT-ERP to a higher fidelity, a known challenge in primary and secondary care settings (Farrell et al., 2023).

For a minority of people with OCD, CBT-ERP (at least at standard doses) is not effective (Öst et al., 2016). In the current study, two participants did not achieve reliable (i.e., statistically significant) improvement across all raters. Both participants had a comorbid autism diagnosis and had several co-occurring conditions, e.g., depression, ADHD, and epilepsy. Comorbidity may reduce the effectiveness of CBT-ERP (Farrell et al., 2023; Torp et al., 2015) and while CBT-ERP can be effective for autistic children with OCD (Kose et al., 2018), outcomes may be more modest and adaptations required (Flygare et al., 2020; Jassi et al., 2023; Martin et al., 2020).

However, more common than true CBT-ERP treatment-resistance is clients receiving sub-optimal doses of high-fidelity CBT-ERP (Farrell et al., 2023). Indeed, over 60% of participants in the current study had CBT-ERP previously, to varying fidelity and dose, and all had received psychological therapy. Intensive treatments do not offer a novel treatment—instead, they offer the standard treatment (in this instance, CBT-ERP) in a time-modified format (Trent et al., 2025) by increasing frequency of sessions (e.g., 3x 1-hr sessions every day for 2 weeks), duration of sessions (e.g., 1x 3-hr session, once a week), or both, as per the current study (e.g., 2x 3-hr sessions per week). By concentrating the effective elements, diluting elements can be removed to strengthen the “dose” provided (Storch, 2014). Additionally, in longer duration sessions, there is opportunity for multiple increases/decreases in distress, and for different “themes” to be targeted concurrently or sequentially—both mechanisms making ERP more effective (Kircanski & Peris, 2015). In the current study, participants typically had multiple themes of OCD and took longer to habituate than may be seen in a less severe cohort. The intensive format also permitted faster gains, where children may have otherwise been too unwell to wait for 3 + months to see improvements, and generated substantial “buy in” for family participation to increase ERP practice for 6 weeks. This may be easier for families to commit to, rather than lesser practice over a longer period.

Limitations

First, sample size precluded analysis of moderating variables, and limits generalisability to a larger cohort. Second, as per standard clinical practice, measures were completed by the treating clinician, rather than an independent assessor, which introduces bias and possible demand characteristics. Third, ethnicity/race was not analysed from medical records, and there was a predominantly female sample. Finally, as per standard clinical services, no follow-up data was collected, so the long-term effects on symptom trajectory, remission rates and hospitalisations are unknown.

Conclusions and Future Directions

The cohort of children and adolescents in the current study had severe and complex OCD including years of symptoms, previous psychological therapy, and past hospital admissions. Anecdotally, some had been described as “treatment resistant” or “too severe to engage in CBT-ERP”. Yet, the intensive CBT-ERP program was effective in reducing OCD symptoms and family accommodation whilst improving functioning. No participants were admitted to hospital during the program. Taken together with a companion analysis of impact of the program on hospital admissions (McAdams et al., 2026), there is strong support that the OCD speciality service can relieve burden from the healthcare system, treating clients who may otherwise escalate to inpatient treatment. Follow-up data on this severe cohort could illuminate treatment pathways, symptom trajectories and economic analysis. The intensive CBT-ERP program represents opportunity to prevent hospital admission with high-quality evidence-based care in community for children with severe and complex OCD, providing hope for change in routine clinical care.

Declarations

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Declaration of Conflicting Interests

L.J. Farrell is the author of the OCD Busters program and receives consultancy fees for training and supervision in relation to these materials. She receives royalties from Cambridge University Press, Elsevier, and Springer for published works and ongoing editorial work. The authors declare they have no other conflicts of interest.

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Data Availability

Data is not publicly available as it is confidential health data.

Ethical Information

Informed written parental consent and child assent for both use of clinical data in research, and for said research to be published, was obtained as per Sydney Children's Hospitals Network human research ethics committee approval (2022/ETH01213).

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Patrick Pham was responsible for Investigation and Writing (Review/Editing).

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Figures

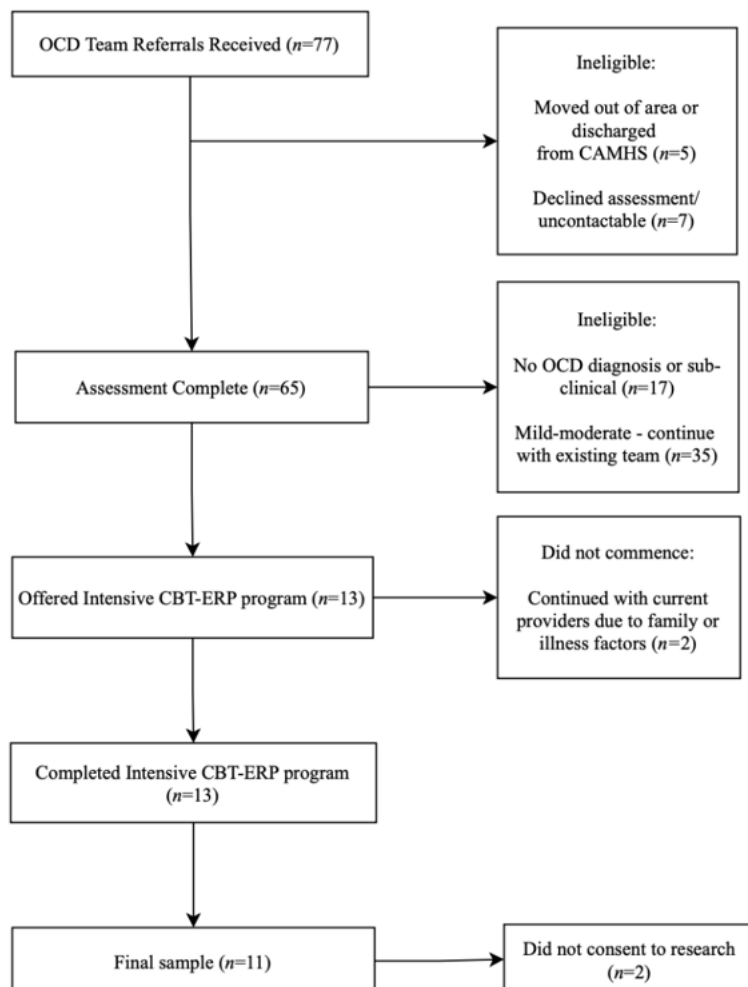


Figure 1

CONSORT diagram showing flow of patients from referral to treatment and final sample.

Figure 2
Weekly Clinician, Parent and Child CY-BOCS Total Scores for Each Participant Across the
Intensive Program: Two Weeks of Baseline Monitoring, Two Weeks of Intensive ERP and
Four Weeks of Maintenance

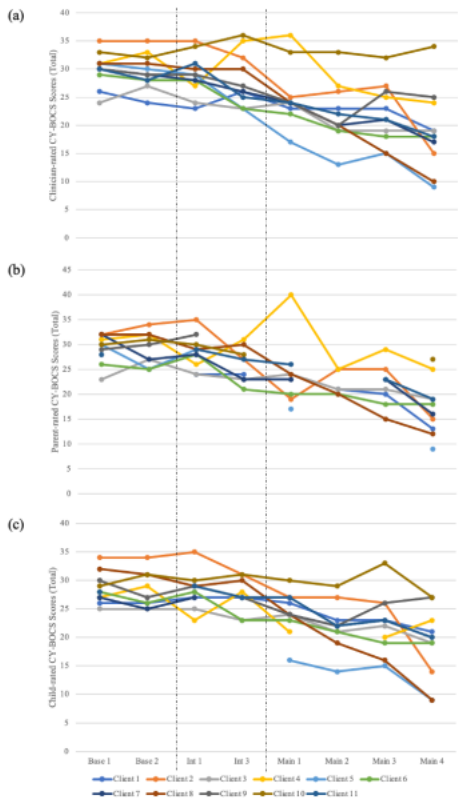
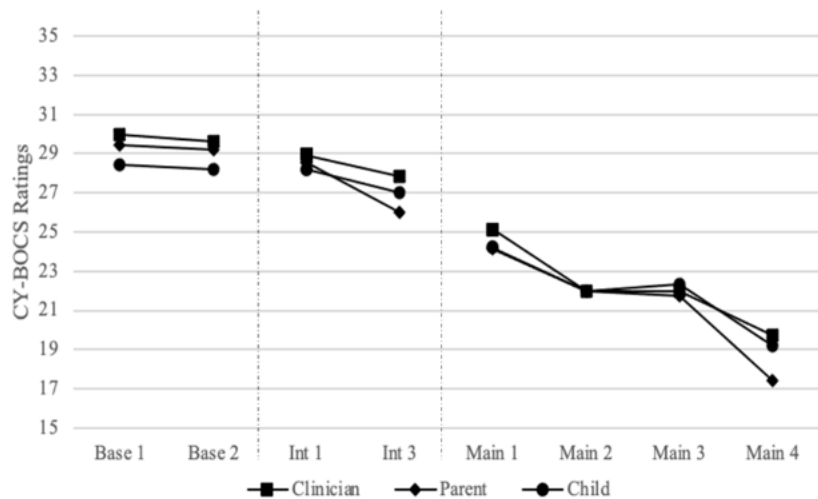


Figure 2

See image above for figure legend.

Figure 3
Average Total CY-BOCS Scores as Rated by Clinician, Parent and Child Across the Intensive Program: Two weeks of Baseline Monitoring, Two Weeks of Intensive ERP, Four Weeks of Maintenance



Note: CY-BOCS ratings were completed weekly, but two sessions per week were delivered for the Intensive ERP component; ratings were completed at Sessions 1 and 3 (the first session of the week, each week).

Figure 3

See image above for figure legend.