

Original Research

Intensive Cognitive Behavioral Therapy for School Avoidance among Youth with Anxiety Disorders or OCD in the COVID-19 PandemicJacqueline B. Sperling ^{1, 2, *}, Abigail M. Stark ^{1, 2}, Julianne G. Wilner ^{1, 2}

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doi:10.21926/obm.icm.2502028**Received:** January 27, 2025**Accepted:** June 10, 2025**Published:** June 26, 2025**Abstract**

School avoidance is associated with a range of negative outcomes and has been increasing in youth in the past several decades. This study examined the efficacy of an intensive outpatient CBT program, for youth (N = 137, ages 8-19) with anxiety disorders or obsessive-compulsive disorder (OCD) and compared both baseline symptoms and outcomes for youth with school avoidance compared to those without. At admission, results indicated that parents of children with school avoidance reported higher levels of family accommodation, child anxiety, and functional impairment. Children, whose parents reported their difficulties with attending school, reported higher levels of functional impairment. Despite these higher ratings at admission, children with school avoidance experienced similar degrees of improvement in symptomatology and functional impairment by discharge to those without school avoidance. This study demonstrated that intensive treatment with both in-person and virtual treatment days may be a way to address school avoidance, as well as associated anxiety symptoms, by offering a concentrated dose of evidence-based treatment that could facilitate faster improvement.



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Keywords

School avoidance; children; anxiety disorders; obsessive-compulsive disorder; cognitive behavioral therapy; intensive treatment

1. Introduction

School avoidance, also referred to as school refusal, describes a complex pattern of behavior that includes children or adolescents consistently refusing to attend school, arriving late to school, or avoiding classes consistently [1]. Although not classified as a formal psychiatric diagnosis in the DSM-5, school avoidance often co-occurs in conjunction with emotional disorders like anxiety or depressive disorders [2]. Studies have indicated that approximately 1-15% of students experience some form of school avoidance, with prevalence varying based on factors like age, socioeconomic status, and geographical location [1]. School avoidance can have significant impacts on the development of youth. Regular school attendance plays a critical positive role in the emotional, physical, social, and academic outcomes of youth [3]. Conversely, school avoidance is associated with increased levels of anxiety, depression, substance use, poorer academic achievement, increased suicidality, unemployment, and other negative outcomes across an individual's lifetime [3, 4].

Although school avoidance rates were already on the rise before the COVID-19 pandemic, the issue has escalated significantly since its onset. Initial research has indicated a sharp increase in school avoidance post-pandemic [5, 6]. Data from England's Department of Education revealed that the proportion of children missing over 10% of school days—a key marker of school avoidance—doubled in the post-pandemic period [6].

Addressing school avoidance, and understanding its prevalence, is particularly complex due to its multifaceted nature. The behavior can manifest in various forms, from frequent absenteeism, intense anxiety and panic, physical complaints like headaches to outright refusal to attend school [3]. Due to its complex nature, school avoidance is commonly divided into two overlapping categories: those who avoid school due to anxiety, which is highly correlated with depression symptoms, and those who avoid school due to oppositional behaviors, such as truancy. However, these groups are not mutually exclusive as many youth exhibit characteristics of both groups and may meet criteria for multiple psychiatric diagnoses [2]. This paper will focus on school avoidance associated with anxiety disorders and OCD. Research on school avoidance associated with anxiety tends to use a definition by Berg and colleagues [7] that includes attending less than 80% of expected school time over two weeks as well as the presence of an anxiety disorder and the absence of conduct disorder.

Anxiety disorders are the most common psychiatric disorder for youth and affect approximately 15-20% of children prior to adulthood [8]. Obsessive-Compulsive disorder (OCD) affects 1-3% of youth [9]. Both anxiety disorders and OCD have significant implications for school avoidance [10, 11]. These conditions often manifest in school-related fears. For example, symptoms of social anxiety, OCD-related getting ready rituals that take up a significant amount of time, or perfectionism with schoolwork can lead to chronic absenteeism or school refusal. In terms of anxiety disorders, separation anxiety in younger children is the most associated with school avoidance [3] whereas

social anxiety and generalized anxiety disorders in adolescents are the most associated with school avoidance [12]. With respect to OCD, students may experience intrusive thoughts or compulsions, such as the need to repeat tasks until they feel "perfect," significantly impairing their ability to complete assignments or even attend class consistently [10]. Youth with OCD often have lower grades than their peers, struggle with higher rates of school avoidance or tardiness, and also may have greater challenges with social relationships [11]. Similarly, children with generalized anxiety disorder or social anxiety disorder often avoid school to escape fear-inducing situations, such as tests, presentations, or peer interactions. Generalized anxiety disorder and performance anxiety have high associations with school avoidance [13]. Without effective support, these issues can lead to long-term academic and social challenges, highlighting the need for treatments for OCD and anxiety disorders to consider school avoidance and school-based functioning [3].

Anxiety-driven school avoidance often is related to both negative and positive reinforcers associated with missing school. Missing school may be positively reinforced by engaging in enjoyable activities like watching television and receiving increased attention from parents while at home. Negative reinforcers of missing school include avoidance of anxiety-provoking triggers at school, such as stressful social interactions or academic pressure [5]. The negative reinforcement, or removal of an aversive stimuli, of avoiding school can be a powerful determinant. Research supports the idea that anxiety disorders often emerge over time from an initial anxiety sensitivity coupled with avoidance of fearful situations [14]. This cycle of avoidance often exacerbates anxiety and creates a feedback loop of school-related fears that intensify with prolonged absences [2]. Effective interventions typically address both the underlying psychiatric disorders and the behavioral patterns contributing to avoidance [3].

Furthermore, family accommodation, behaviors (from parents/caregivers, etc.) that may include facilitating children's anxiety-driven avoidance, agreeing to or enforcing rules or expectations from children related to their anxiety, changing family routines or the environment to soothe children's anxiety, or providing excessive reassurance from anxiety [15, 16], is highly prevalent in families of anxious children and is associated with worse anxiety symptoms and functional impairment in youth [16-18]. Regarding school avoidance in particular, family accommodation has been found to uniquely predict challenges with youth school attendance, above and beyond child's anxiety symptoms [19]. Family accommodation is a highly common response to child anxiety in general, with research suggesting over 90% of caregivers accommodate their children with anxiety [20, 21]. Although typically well-intentioned and enacted to ease their child's discomfort, accommodation often inadvertently reinforces children's avoidance behaviors, which can ultimately exacerbate anxiety and associated avoidance [22, 23]. Moreover, family accommodation may hinder opportunities for kids to learn essential skills like emotion regulation and adaptive coping to manage their anxiety [24]. As such, it often is a target in treatment for children's school avoidance [25], and involves helping parents facilitate approach and engagement with school instead [26], along with learning ways to cope with their own distress [24].

Although school avoidance has been increasing and linked to numerous negative outcomes for youth, evidence-based treatments are available. A meta-analysis of treatment of school refusal demonstrated that individual CBT for school refusal, with either no or some parental involvement, that included psychoeducation, cognitive interventions, exposure and response prevention (ERP), and communication with school staff members, has the most evidence as an effective treatment for improving school attendance [27, 28]. However, there was no evidence of support for reducing

anxiety levels. Researchers hypothesized that may be because anxiety levels might increase initially with the increase in school attendance, and associated exposure to anxiety, and that perhaps assessments after longer durations of school attendance might have demonstrated reduced anxiety levels over time [28].

Although individual weekly CBT has the most data to support its effectiveness in improving school attendance, it still is not effective for one-third to two-thirds of youth [27]. It may be that a more intensive treatment format that offers more frequent support when children work on re-entering school may be needed. Intensive treatment tends to reduce anxiety symptoms more quickly than weekly therapy [29], which also is imperative when learning, friendships, and other areas are being affected by school avoidance. One example of intensive treatment for school avoidance included starting with weekly outpatient CBT for one patient, but the researchers noted barriers to accessing care in the office setting [30]. In turn, researchers determined that implementing a functional analysis followed by problem-solving, which followed Kearney and Silverman's treatment model [31, 32], using an intensive format of treatment that took place closer to the family's home to address any behaviors that might have been interfering with progress during CBT were indicated. By the end of treatment, researchers reported that the patient's symptoms were subclinical, class attendance was more regular, and grades were higher [30]. This study only focused on one patient, though; additional research on intensive CBT for a larger sample size of youth having difficulty attending school is needed. This study aims to address this gap in the literature.

Virtual treatment could help address the barriers to accessing office-based care identified in the previous study. In-person care can have several barriers. For example, some youth experiencing school avoidance may feel too anxious to attend in-person appointments initially and might benefit from starting their treatment virtually. Virtual care additionally allows for a wider dissemination of treatment by offering access to families, who may live further away from treatment facilities. Research has demonstrated that virtual intensive treatment is as similarly effective as in-person intensive treatment for pediatric anxiety disorders and OCD in terms of reducing symptoms and functional impairment [33].

This study explored family accommodation, anxiety severity, depression, and functional impairment at admission of an intensive treatment program for youth with and without school avoidance. More specifically, it examined changes in family accommodation, anxiety severity, depression, and impairment from admission to the end of treatment. The study examined the following aims and hypotheses:

Aim 1: Our first study aim was to investigate whether parents and children would report higher levels of family accommodation at the time of admission among youth presenting with school attendance difficulties compared to those without such difficulties.

Hypothesis 1: In light of past research that found high rates of family accommodation in families of children who have difficulty attending school consistently [19], it was hypothesized that parents and children would endorse higher levels of family accommodation for children having difficulty attending school regularly at admission.

Aim 2: Our second study aim was to evaluate whether youth with school attendance difficulties would exhibit higher levels of anxiety, depression, and functional impairment at admission relative to their peers without school attendance challenges.

Hypothesis 2: Due to past research having demonstrated that school avoidance is associated with increased levels of anxiety, depression, and poorer academic achievement [3, 4], it was hypothesized that parents and youth would report higher levels of anxiety, depression, and functional impairment at admission for youth who have difficulty attending school regularly.

Aim 3: Our third and final study aim was to examine whether youth with school attendance difficulties would demonstrate less improvement in psychiatric symptomatology and functional impairment following intensive treatment compared to youth without school attendance concerns.

Hypothesis 3: Because past research noted that anxiety levels did not decline after treatment for school avoidance [28] and because of the high level of functional impairment often associated with those having difficulty attending school [3, 4], it was hypothesized that youth who have difficulty attending school will experience less improvement in symptomatology and functional impairment in intensive treatment.

2. Method

2.1 Participants

Participants included 137 children and adolescents, ages 8-19, who were patients in an intensive outpatient group-based treatment program at an academic medical center in an urban city on the east coast of the United States. All patients and their caregivers provided assent or consent, respectively, for their treatment outcome data to be used for research purposes. Referral sources included other clinicians, such as those in outpatient, residential, or inpatient settings, school staff members, or families who learned about the program through the hospital's website or through local community members. All study procedures were approved by the Institutional Review Board.

Among the participants, 75 (54.7%) identified as female, 45 (32.8%) identified as male, 3 (2.2%) as nonbinary, and 2 (1.5%) as gender fluid. In addition, 3 (2.2%) reported that their gender was not listed and specified that they did not want to categorize themselves as a gender, were still figuring out their gender identity, or identified as in between gender fluid and nonbinary but have not found the word for it yet. Moreover, 2 (1.5%) reported that they would rather not say their gender, and 7 (5.1%) did not identify a gender. The mean age was 13.65 (SD = 2.81). Regarding race, patients could select multiple responses, and 112 (81.8%) identified as White, 8 (5.8%) as Asian, Asian American, or Pacific Islander, 5 (3.6%) as Hispanic, Latina, Latino, or Latinx (White), 3 (2.2%) as Black or African American, 3 (2.2%) as Middle Eastern, 2 (1.5%) as multiracial, 1 (0.7%) Hispanic, Latina, Latino, or Latinx (Non-White), and 1 (0.7%) as Alaskan Native, Native American, or Indigenous. In addition, 1 (0.7%) reported that their race was not listed and did not specify their race, and 1 (0.7%) noted that they would rather not say their race. With respect to sexual orientation, 82 (59.9%) identified as heterosexual or straight, 10 (7.3%) as bisexual, 5 (3.6%) as pansexual, 2 (1.5%) as gay, 2 (1.5%) as lesbian, and 1 (0.7%) as queer. In addition, 14 (10.2%) reported that their sexual orientation was not listed, and some specified that they would rather not say their sexual orientation, were not sure yet, identify as gay and biromantic, or identify as omnisexual. Furthermore, 13 (9.5%) reported that they would rather not share say their sexual orientation, and 8 (5.8%) did not endorse a sexual orientation. The majority of families in the study endorsed earning an annual family income over \$100,000 [120 (87.6%), and 5 (3.6%) did not respond to this question or chose not to disclose]. Parents also were highly educated; 38 (37.7%) of the responding parents reported having earned a bachelor's degree, 57 (41.6%) endorsed having a master's degree, 28 (20.4%) noted having a

professional degree (e.g., M.D., Ph.D., J.D., etc.), 7 (5.1%) reported that they attended some or a two-year college, 1 (0.7%) reported that they completed a vocational/trade/business school, 5 (3.6%) reported that they completed high school or got their GED, and 1 (0.7%) did not answer the question. Most parents, 124 (90.5%) identified as being married. For the remaining caregivers, 7 (5.1%) identified as being divorced, 2 (1.5) identified as being widowed, 3 (2.2%) reported that they are not married, and 1 (0.7%) did not answer the question.

2.2 Measures

2.2.1 Spence Children's Anxiety Scale [Child Report (SCAS-C) and Parent Report (SCAS-P) [34, 35]]

The SCAS-C is a 44-item child-report questionnaire, and the SCAS-P is a 39-item parent-report questionnaire. These questionnaires measure severity of anxiety symptoms and also include items related to OCD. They were administered at admission and discharge timepoints. Responses range from 0 ("Never") to 3 ("Always"). The range of possible scores is 0-132 for children, and 0-117 for parents. Higher scores indicated greater levels of anxiety. The SCAS has demonstrated good to excellent internal consistency for both the parent ($\alpha = 0.89$; [36]) and child ($\alpha = 0.92$; [35]) versions of the measure. When this measure was included in analyses and "anxiety" was referenced below, it is important to note that OCD symptoms were included.

2.2.2 Child Anxiety Impact Scale (CAIS-C and CAIS-P [37])

The CAIS-C and the CAIS-P are 27-item questionnaires that were completed by the children and parents in our program, respectively. This measure assesses for interference in social, home, and academic domains. The measures were administered at admission and discharge timepoints to assess the impact of anxiety on patients' functioning. Responses are rated on a 4-point Likert scale, ranging from 0 ("not at all") to 3 ("very much"), with possible scores ranging from 0-81. Higher scores indicated greater interference. The total score and subscales for both the parent and child versions show good to excellent construct validity and internal consistency (Cronbach's $\alpha = 0.70$ -0.90; [38]).

In March 2022, authors learned that there was one item missing from the child- and parent-report of the CAIS: "Spending the night at a friend's house." All participants up until that time completed measures with the omitted question, and participants completed the same number of items at each of their own assessment timepoints. The additional item would have potentially increased the total score by a maximum of three points. After March 2022, the additional item was added to the scoring system. Because the analyses compare each person's own ratings at different timepoints, all of the CAIS data that involved a consistent number of responses at each time point for each reporter were included in the analyses.

2.2.3 Center for Epidemiological Studies Depression Scale for Children (CES-DC [39])

The CES-DC is a 20-item questionnaire that measures self-reported depression symptoms in children. The measure was administered at admission and discharge timepoints. Each item response ranged from 0 ("Not at all") to 3 ("A lot"), with possible scores ranging from 0 to 60 and higher scores indicating greater depression severity. The CES-DC has demonstrated very good internal consistency ($\alpha = 0.89$; [40]).

2.2.4 Family Accommodation Scale - Anxiety [Child Report (FASA-CR) and Parent Report (FASA) [18, 19]]

The FASA-CR is a 16-item scale that measures the child-reported frequency of parent accommodation in symptom-related behaviors, modifications in daily behaviors, and consequences of these behaviors. The measure is adapted from the original version designed for family members of adults with OCD [41]. The scale contains 9 items on a 5-point Likert scale measuring frequency of parent accommodation behaviors ranging from "never" to "daily," and 7 items rating child-reported emotional responses from self and parent, ranging from "strongly disagree" to "strongly agree." The range of possible scores is 0-64 for children, with higher scores indicating greater levels of accommodation. The measure demonstrated good internal consistency for the nine accommodation items ($\alpha = 0.79$; [42]).

The FASA is a 13-item parent-report scale that measures the frequency of parent participation in symptom-related behaviors, modifications in daily behaviors, and consequences of these behaviors. The scale contains 9 items on a 5-point Likert scale measuring frequency of parent accommodation behaviors ranging from never to daily, and 4 items on a 5-point Likert scale measuring intensity of emotional distress associated with parent accommodation ranging from no distress to extreme distress. The range of possible scores is 0-52, with higher scores indicating greater levels of accommodation. The measure demonstrated good internal consistency for the nine accommodation items ($\alpha = 0.87$; [42]).

2.2.5 Treatment History

In a questionnaire that asked about treatment and school history and was administered at admission and discharge, parents answered an item that asked whether their children were attending school regularly or not attending school regularly.

2.3 Ethics Statement

Informed consent and assent were obtained at families' initial visit to the program during the diagnostic evaluation. Families were asked to complete routine outcome monitoring questionnaires at the beginning of treatment, the day of discharge, and three months after the discharge date. One caregiver from each family completed the questionnaires for consistency in reporting. The questionnaire responses were collected and managed using REDCap (Research Electronic Data Capture), a secure, HIPAA-compliant, web-based software platform designed to support data capture for research studies [30, 43, 44]. Families either completed the questionnaires while using one of the program's tablets while at the clinic or by using a personal electronic device at home.

2.4 Procedure

During treatment, each family was assigned a treatment team, which consisted of a psychologist, psychiatrist, and clinical or counseling psychology doctoral student. There was a treatment group for children ages 8-13, and one for adolescents and young adults ages 14-19. Group size was 5-6 patients in the child group and 6-8 patients in the adolescent group.

Children attended treatment four afternoons per week for a minimum of four weeks and with the option of extending (with a minimum extension of two weeks). The average length of treatment

was about seven weeks ($M = 6.93$, $SD = 2.12$). Participants attended a 45-minute psychoeducation group and a 90-minute exposure with response prevention (ERP) group three days each week, during which participants engaged in individually tailored exposure practices within the group setting. At the end of each day, a clinician met with a child and caregiver privately to review the exposures that were completed that day, the rewards earned for the tangible reward system established at the program, and the action plan, which consisted of assignments, such as exposures, to be completed before the next treatment day. Every family also attended a weekly 45-minute therapy session with their psychologist and a 45-minute session with their psychiatrist for medication consultation. Children attended treatment for about 11 hours each week in total.

In addition to daily check-ins and participation in weekly family and psychopharmacology meetings, caregivers also participated in treatment by attending caregiver guidance groups. These groups taught caregivers relevant skills to support their children and families within the framework of addressing anxiety and OCD. Over the course of the pandemic, the caregiver guidance group initially was offered twice a week, and then the program shifted to offering the group once a week in response to caregivers' feedback and attendance. The change coincided with a change in treatment format due to shifts in social distancing requirements associated with the COVID-19 pandemic. Specifically, treatment transitioned to a fully virtual format in March 2020; treatment was delivered remotely via videoconferencing technology. In August 2022, when the pandemic treatment setting restrictions had been reduced, the program transitioned to a hybrid model of care, with one in-person group day and three virtual treatment days. This study focused on the families who attended treatment after the start of the pandemic and the transition to virtual programming. Twice weekly caregiver guidance groups were offered as part of the fully virtual format, and once weekly caregiver guidance groups were offered as part of the hybrid format. Paired *t*-tests compared families who had access to one weekly caregiver guidance group to those who had access to two weekly caregiver guidance groups on all outcome variables that were used in this study, which were calculated as the difference between admission and discharge ratings. The only outcome variable for which there was a significant difference was the child-reported anxiety score. After conducting a one-way ANCOVA that controlled for admission ratings of child-reported anxiety while also examining differences between the two treatment formats, there were no significant differences in child-reported anxiety between the two treatment formats. Therefore, the analyses that focused on the program as a whole examined all families together, regardless of the number of caregiver guidance groups attended.

With respect to the program's payment structure, the initial evaluation, weekly family meetings, and weekly psychiatry meetings were insurance-based sessions, and the remaining sessions were self-pay. Families had the opportunity to apply for a scholarship for the self-pay portion of treatment.

3. Results

3.1 Descriptives

This study examined the rate of parent-reported school attendance for their children. At the start of treatment, $n = 85$ (62%) of parents reported that their children were attending school regularly, and $n = 52$ (38%) reported that their children were not going to school regularly. At the time of discharge, $n = 63$ (46%) of parents reported regular attendance, $n = 16$ (11.7%) reported irregular

attendance, $n = 10$ (7.3%) noted that the question was not applicable as often the discharge date was in the summer, when school was out of session, and $n = 48$ (35%) did not answer the question.

In order to examine whether school attendance changed over the course of treatment, a new variable was created to note the change from the admission to the discharge report of school attendance. For this variable, $n = 49$ (35.8%) reported that their children continued to attend school regularly, $n = 14$ (10.2%) reported that their children changed from attending irregularly at admission to attending regularly at discharge, $n = 13$ (9.5%) reported that their children continued to attend irregularly, and $n = 3$ (2.2%) reported that their children changed from attending regularly to attending irregularly. Of note for these three families, one family accidentally endorsed that their child was attending irregularly when the child was attending regularly, one family decided to explore other school options for the child while the child was in treatment and not have the child go back to its current school during treatment, and one family reported that the child tended to start the school year attending regularly and then have difficulty afterward, which aligned with the treatment timeline. Table 1 includes the descriptives of the other measures (e.g., the SCAS) at admission and discharge respectively.

Table 1 Descriptives of measures at admission and discharge.

Measure	Admission		Discharge	
	M	SD	M	SD
SCAS-Child	39.35	18.32	21.32	16.73
SCAS-Parent	35.77	14.17	19.76	14.21
CAIS-Child	25.02	17.09	15.07	17.12
CAIS-Parent	31.32	15.32	16.09	13.90
CES-DC	23.30	13.14	15.97	12.34
FASA-Child	28.11	11.98	15.08	9.99
FASA-Parent	29.14	11.69	12.70	10.46

3.2 Analytic Strategy

Independent-Sample t -tests were performed using SPSS 28.0 to assess differences among those that changed from reported irregular to regular attendance to those whose parents reported that their children continued to attend school irregularly. The potential factors examined were treatment duration in number of weeks, the child's age, admission levels of child-reported depression symptoms, and admission rates of parent- and child-reported anxiety, functional impairment, and family accommodation. The only significant factor was the child's age [$M(\text{change to regular attendance}) = 12.43$, $SD = 3.01$; $M(\text{continued irregular attendance}) = 15.77$, $SD = 2.42$; $t(25) = -3.17$, $p = 0.004$]; younger children's parents were more likely to report that their children changed from attending school irregularly at admission to attending regularly by discharge compared to adolescents' parents. Child-Reported anxiety was marginally significant [$M(\text{change to regular attendance}) = 36.07$, $SD = 20.79$; $M(\text{continued irregular attendance}) = 48.46$, $SD = 16.14$; $t(25) = -1.72$, $p = 0.098$]; children whose parents reported that they continued to attend school irregularly by end of treatment reported marginally higher levels of anxiety symptoms at admission.

3.2.1 Aim 1: Examining Levels of Parental Accommodation at Admission in Children with and without Difficulty Attending School

Independent sample *t*-tests were conducted to assess whether there were higher rates of family accommodation for families whose children were reported to have difficulty attending school at admission. Parents, but not their children, reported higher levels of family accommodation at admission when they also reported that their children were having difficulty attending school regularly [*M*(parent FASA for regular attendance) = 27.06, *SD* = 11.60; *M*(parent FASA for irregular attendance) = 32.64, *SD* = 11.10; *t*(124) = -2.65, *p* = 0.009].

3.2.2 Aim 2: Evaluating Levels of Anxiety, Depression, and Functional Impairment at Admission among Youth with School Attendance Difficulties, Relative to Peers without Such

Difficulties Independent sample *t*-tests were conducted to examine whether youth who had difficulty attending school regularly at admission had higher levels of reported anxiety symptoms, depression symptoms, or functional impairment. Parents but not children reported higher levels of anxiety if they reported that their children were having difficulty attending school [*M*(parent SCAS for regular attendance) = 33.58, *SD* = 14.21; *M*(parent SCAS for irregular attendance) = 39.35, *SD* = 13.47; *t*(135) = -2.35, *p* = 0.020].

There were no significant differences in child-reported depression. However, both parents and children reported higher levels of functional impairment when parents also noted that their children were not attending school regularly compared to youth whose parents noted that their children were attending school regularly [*M*(parent CAIS for regular attendance) = 27.53, *SD* = 14.42; *M*(parent CAIS for irregular attendance) = 37.52, *SD* = 14.85; *t*(135) = -3.89, *p* = 0.001; *M*(child CAIS for regular attendance) = 22.48, *SD* = 14.65; *M*(child CAIS for irregular attendance) = 29.00, *SD* = 19.85; *t*(124) = -2.09, *p* = 0.039].

3.2.3 Aim 3: Examining Symptom Improvement and Change in Functional Impairment for Youth with and without Difficulty Attending School

One-Way ANCOVA's were run to examine whether youth who were reported to have had difficulty going to school at admission experienced less change by discharge. First, the difference between admission and discharge ratings for each of the variables of interest (i.e., parent- and child-reported anxiety, child-reported depression, parent- and child-reported functional impairment, and parent- and child-reported family accommodation) were computed. Next, whether parents reported that their children were going to school regularly or not at admission was added as an independent variable. Lastly, the admission rating of the relevant measure and reporter was added as a covariate to control for admissions levels. For example, child-reported anxiety at admission was added as a covariate to see whether school attendance was associated with less change between child-reported anxiety levels at admission and at discharge.

None of the models were significant; families who reported that their children had difficulty attending school at admission reported similar degrees of change by discharge after controlling for ratings at admission when compared to families who reported that their children were attending school regularly at admission.

4. Discussion

Recognizing the significant impact that school avoidance can have on children's emotional, social, and academic developments [3, 4], this study aimed to examine differences in degrees of reported family accommodation, symptomatology, and functional impairment in families whose parents endorsed that their children had difficulty attending school before treatment compared to parents who reported that their children had been attending school regularly. In addition, the study investigated whether intensive group- and family-based CBT that included both in-person and virtual treatment sessions could be effective for those having trouble attending school.

4.1 Family Accommodation among Youth with and without School Attendance Difficulties

The findings partially supported Hypothesis 1, revealing a divergence in perceptions of family accommodation between parents and their children in the context of school avoidance. Parents reported high levels of accommodating behaviors at admission when they also reported that their children were having difficulty attending school regularly, consistent with prior research highlighting the prevalence of family accommodation in families of children with anxiety [18, 19]. However, the children, whose parents reported that the children were having difficulty attending school regularly, did not report significantly different levels of such accommodation compared to children whose parents reported that the children were attending school regularly, suggesting possible under-recognition of these behaviors or a discrepancy in the salience of accommodation between parents and children.

The divergence between parent- and child-report of family accommodation may reflect differences in how family accommodation is experienced or perceived, with children potentially normalizing these behaviors as part of their routine environment. Alternatively, it could signal a lack of explicit communication about these adjustments within the family system. Although parent-child informant discrepancies are not uncommon, it is notable that higher rates of disagreement have been associated with worse treatment response [45]. However, less is known about the impact of parent-child informant discrepancies about parent-specific behaviors (as opposed to child-specific behaviors, symptoms, impairment etc.).

4.2 Symptom Severity and Impairment among Youth with and without School Attendance Difficulties

There also were discrepancies among some of the parent-and child-reported data for the second hypothesis. Specifically, this study's findings provided partial support for Hypothesis 2 as parents but not children reported higher levels of anxiety when they also reported that their children were having difficulty going to school, and the parent-reported data are consistent with past research [4]. Both parents and children whose parents endorsed that their children were exhibiting school avoidance at admission reported significantly higher levels of functional impairment compared to families whose parents reported that their children had been attending school regularly. These results align with previous research that indicated that school avoidance behaviors often are associated with higher functional impairment, reflecting the impact of school attendance difficulties on daily functioning [3, 4]. Functional impairment among school avoidant youth may stem from

disruptions in routines, reduced social interactions, and the compounding effects of missed academic responsibilities [1].

Interestingly, no significant differences were found in child-reported anxiety or depression symptoms at admission, which contrasts with prior studies that have linked school avoidance to heightened anxiety and depression symptoms in youth [4]. Potential explanations for this discrepancy emerge when considering the avoidance-approach model of anxiety disorders [14]. Youth who avoid school may experience fewer natural exposures to anxiety-related triggers, such as academic pressures, peer interactions, or the physical school environment. Although their anxiety might be higher if they were regularly attending school, their current avoidance behaviors could result in temporarily reduced anxiety and depression symptoms. This aligns with the idea that avoidance behaviors can serve as a short-term coping mechanism, though they ultimately exacerbate functional impairment and long-term distress.

Another potential explanation for these findings may lie in the study population. All participants received treatment in an intensive outpatient program. Youth in these settings typically present with elevated levels of depression in addition to anxiety, due to their high comorbidity [46], and youth in this study reported clinical levels of depression symptoms. They also attended treatment because they met criteria for an anxiety disorder and/or OCD regardless of their school attendance. This may have obscured potential differences in anxiety and depression between the two groups, as both were already significantly impaired. There is a paucity of research on anxiety and depression levels at intake for youth with school avoidance within higher levels of care, such as intensive outpatient programs. Importantly, these findings highlight the need for further research exploring the unique profiles of youth who are avoiding school in higher levels of care, as well as the interactions between functional impairment and symptom severity in this population.

4.3 Treatment Outcomes among Youth with and without School Attendance Difficulties

The results for Hypothesis 3 indicated that no significant differences emerged in the degree of symptom or functional improvement between youth with and without school avoidance. In other words, these results suggest that youth with school avoidance behaviors benefitted from intensive cognitive behavioral therapy at similar rates to those without school avoidance behaviors, despite having started with higher levels of parent- and child-reported functional impairment, parent-reported child anxiety, and parent-reported family accommodation. The intensive outpatient treatment program focused heavily on CBT with ERP, highlighting exposure as a vital component of treatment. The use of CBT with ERP to reduce anxiety-related avoidance behaviors, including school refusal, is strongly supported in the literature [27, 28]. Furthermore, ERP's focus on real-life application makes it particularly well-suited for addressing school avoidance, as it allows students to learn that they can handle being in the school setting [47]. These findings underscore implementing CBT with ERP to mitigate the psychological and educational impacts of school avoidance.

These results also support the use of intensive CBT with ERP for youth with school avoidance. As previously described, although past research has pointed to intensive CBT with ERP's utility in reducing anxiety and OC-symptoms for youth [48], relatively few studies have examined intensive ERP for school avoidance specifically and how intensive ERP may affect anxiety for youth who are avoiding school. In the current study, youth engaged in ERP therapy several hours per day, over

multiple days per week for several weeks. Research suggests that this intensity typically allows for more rapid progress in reducing anxiety and avoidance behaviors [29]. The need for quicker change is especially pressing for school avoidance. An abundance of research points to the compounding challenges, from social isolation to falling behind educationally, that arise from prolonged or more chronic school absence [1]. Intensive outpatient ERP programs may be a particularly helpful youth who are avoiding school as it allows them to remain in their home environment, engage in vivo exposures to their actual school setting, while operating at a level of intensity to see change occur more quickly and help youth get back into school as soon as possible. By addressing school avoidance within the broader context of anxiety treatment, intensive ERP programs may provide a comprehensive approach that fosters resilience to a variety of anxieties that stem from school. It also may allow youth to learn important messages about anxiety such as their ability to tolerate anxiety, that anxiety always passes, and a willingness to approach rather than avoid difficult situations [49].

Notably, the intensive outpatient program utilized a hybrid format with several of the exposure days conducted virtually each week. Research supports virtual therapy as a helpful way of increasing initial buy-in for therapy, improve accessibility and dissemination for those who live far from clinicians [50], and also its equivalent efficacy to in-person CBT with ERP [33, 51]. The virtual format also allowed many of the youth to engage in personally relevant in-vivo school exposures, such as going to their school's parking lot, or walking through the school building, while being coached by a clinician right before the exposures. There has been limited research conducted on hybrid (i.e., virtual and in-person) ERP for school avoidance. Although more research is needed, this study provides preliminary support on hybrid intensive outpatient ERP's efficacy for youth with school avoidance.

4.4 Limitations and Future Directions

There are several limitations and future directions worth addressing. First, the lack of diversity of the study sample limited how fully representative the data are of the treatment-seeking population. Specifically, the majority of the sample identified as White and from families with relatively high incomes (i.e., annual incomes greater than \$100,000). Although the program in this study offered need-based scholarships, it is possible that not all eligible for treatment were aware and sought treatment from the program, which indicates the need to further communicate the availability of scholarships with the community. Additional research is needed to clarify the generalizability of these results to economically and racially diverse populations.

Second, the sample size was limited due to the challenges of collecting data from all families, particularly at the end of treatment, which limited the interpretation of the results. It also prevented analyses of potential moderators. Future research with a larger sample size may be able to explore predictors of whom is more likely to maintain gains after treatment. Understanding these factors can allow clinicians to identify who might not maintain gains after discharge and reasons why. In turn, clinicians may be better able to tailor treatment so that it optimizes outcomes for more youth.

Third, the study included self- and parent-report data, and there were no independent evaluations to offer an additional perspective. The program originally included assessments conducted by independent evaluators, and these assessments needed to be discontinued because they required children to be out of school for them, a time when the program was not running.

Because the treatment aimed to get children back into school, the assessments were deemed contraindicated and discontinued.

Fourth, during periods of the COVID-19 pandemic, there was variability in terms of what school attendance looked for children, such as whether they had virtual school, a hybrid of virtual and in-person school, or fully in-person school. Therefore, reports of regular school attendance during some of the early parts of the pandemic may have posed different challenges for students depending on the education setting, and in turn, may have played a role in the results. Fifth, the study did not compare different treatment formats for those having difficulty attending school regularly, so the results do not indicate that the intensive hybrid treatment format is more effective than another treatment setting. Past research, however, has noted that weekly CBT posed barriers to accessing treatment and that a subsequent shift to intensive treatment demonstrated a more feasible treatment approach [30]. Furthermore, other past research found that virtual intensive CBT was just as effective as in-person CBT [33]. Future research may benefit from comparing intensive CBT with virtual components to other treatment formats to build upon past research.

5. Conclusions

Despite the limitations, this study adds to the literature on school avoidance and family accommodation by demonstrating that although there are some higher rates of family accommodation, parent-reported child anxiety, and child-reported functional impairment at the start of treatment for youth whose parents endorsed that their children were having difficulty attending school regularly, intensive treatment can help these youth achieve similar levels of improvement as youth who had been attending school regularly. Moreover, an intensive treatment structure may be able to help more children get back to school sooner due to the concentrated dose of treatment. Future work may emphasize disseminating this treatment format to increase access to care and potentially school attendance.

Author Contributions

Jacqueline B. Sperling, Ph.D.: created the dataset, ran the analyses, and wrote the abstract, part of the introduction, methods section, results section, and part of the discussion section. Abigail M. Stark, Ph.D.: wrote part of the introduction and the discussion sections. Julianne G. Wilner, Ph.D.: wrote part of the introduction and the discussion sections. All authors have read and approved the published version of the manuscript. The content is solely the responsibility of the authors and does not necessarily represent the official views of Harvard Catalyst, Harvard University and its affiliated academic healthcare centers, or the National Institutes of Health.

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Competing Interests

The authors have declared that no competing interests exist.

Data Availability Statement

The data used in this study is not publicly available.

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