UTS UNIVERSITY OF TECHNOLOGY SYDNEY

A Randomized Trial in an Australian Community Setting Comparing Collaborative and Proactive Solutions with Parent Management Training for Youth Diagnosed with Oppositional Defiant Disorder

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Thesis submitted in fulfilment of the requirements for the degree of

Doctor of Philosophy

under the supervision of Dr John McAloon, Distinguished Professor Emeritus Thomas Ollendick, Dr Sophia Drysdale

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January 2025

Certificate of Original Authorship

I, Rachael Murrihy, declare that this thesis is submitted in fulfilment of the requirements for the award of Doctor of Philosophy, in the Graduate School of Health at the University of Technology Sydney.

This thesis is wholly my own work unless otherwise referenced or acknowledged. In addition, I certify that all information sources and literature used are indicated in the thesis.

This document has not been submitted for qualifications at any other academic institution.

This research is supported by the Australian Government Research Training Program (RTP) Scholarship doi.org/10.82133/C42F-K220.

Production Note:
Signature removed prior to publication.

Submission date: 28/12/2024

Acknowledgements

This incredible opportunity to oversee the implementation and evaluation of a new treatment through a randomized comparison trial for 160 families was only made possible through the guidance and expertise of an exceptional team of supervisors: Dr. John McAloon, Distinguished Professor Thomas Ollendick, and Dr. Sophia Drysdale. John, your depth of knowledge in parent management programs was invaluable, and I greatly appreciated your supportive approach to supervision. Tom, words cannot adequately express my gratitude for everything you have taught me. Learning from a pioneer in psychology has been an extraordinary privilege, and your mentorship has set an inspiring standard that I will strive to uphold throughout my career. Sophia, I consider myself fortunate to have learned from such a knowledgeable and dedicated researcher. Your unwavering commitment to this thesis and my growth as a researcher has been deeply appreciated, and I am grateful for the opportunity to learn both the art and science of research through your mentorship. I would also like to acknowledge my colleague, Anna Dedousis-Wallace, whose decision to join me on this project and pursue a complementary PhD was a stroke of good fortune. Sharing this journey of learning and persistence with someone of your caliber made this experience both supportive and enjoyable. Lastly, I want to express my love and gratitude to my boys, Thomas and Joseph. They are my greatest inspiration.

Statement of Thesis Format

The present work is in the format of a traditional thesis.

Publications and Presentations

***Journal publications*:**

Murrihy, R. C., Drysdale, S. A., Dedousis-Wallace, A., Rémond, L., McAloon, J., Ellis, D. M., Halldorsdottir, T., Greene, R., & Ollendick, T. H. (2023). Community-delivered Collaborative and Proactive Solutions and Parent Management Training for oppositional youth: A randomized trial. *Behavior Therapy, 54(2),* 400-417. https://doi.org/10.1016/j.beth.2022.10.005.

Murrihy, R. C., Drysdale, S. A., Dedousis-Wallace, A., McAloon, J., & Ollendick, T. H. (2024). A Comparative Analysis of Treatment Acceptability in Collaborative and Proactive Solutions and Parent Management Training for Oppositional Youth. *Submitted to Behavior Therapy.* Revise and resubmit.

***Related publications*:**

Dedousis-Wallace, A., Drysdale, S. A., McAloon, J., **Murrihy, R. C.,** Greene, R. W., & Ollendick, T. H. (2022). Predictors and moderators two treatments of oppositional defiant disorder in children. *Journal of Clinical Child & Adolescent Psychology*, 1-16. https://doi.org/10.1080/15374416.2022.2127102

Kimonis, E. R., Fleming, G. E., & **Murrihy, R. C.** (2023). Disruptive behavior disorders. In L.J. Farrell, R. C. Murrihy, & Essau, C. A. *Handbook of Child and Adolescent Psychology Treatment Modules (*pp, 205-226). Academic Press. https://doi.org/10.1016/B978-0-323-99613-6.00017-X

Murrihy, R. C., Burns, J. R., Reinke, W. M., Herman, K. C., & King, K. R. (2017). Evidence-based assessment and intervention for oppositional defiant disorder and conduct disorder in school psychology. In M. M. Thielking, & M. D, Terjesen. *Handbook of Australian School Psychology (*pp. 331–347). Springer International Publishing AG. https://doi.org/10.1007/978-3-319-45166-4_17

***Oral presentations*:**

Murrihy, R. C., Dedousis-Wallace, A., Drysdale, S. A., McAloon, J., Greene, R. W., & Ollendick, T. H. (2016, June). Parent Management Training and Collaborative & Proactive Solutions: A randomised comparison trial for oppositional youth within an Australian population: Preliminary findings. In Murrihy, R. (Chair), Advances in conceptualization and treatment of youth with oppositional defiant disorder: A comparison of two major therapeutic models**.** *Paper symposium presented at the Eighth World Congress of Behavioural and Cognitive Therapies,* Melbourne, Victoria, Australia.

Murrihy, R. C., Dedousis-Wallace, A., Drysdale, S. A., McAloon, J., Greene, R. W., & Ollendick, T. H (2023, August). Parent Management Training and Collaborative & Proactive Solutions: A randomised comparison trial for oppositional youth within an Australian population. *Paper presented at the 15th International Conference on Child and Adolescent Psychopathology,* Sarawak, Malaysia.

Murrihy, R. C., Dedousis-Wallace, A., Drysdale, S. A., McAloon, J., Greene, R. W., & Ollendick, T. H. (2023, November). Parent Management Training and Collaborative & Proactive Solutions: A randomised comparison trial for oppositional youth within an Australian population**.** In Farrell, L, J (Chair), Influences, inspirations and joy in developing treatments for child anxiety, specific phobias and oppositional defiant disorders: a tribute to Distinguished Professor Thomas Ollendick, our 29th ABCT President. *Paper symposium presented at the Association for Behavioral and Cognitive Therapies (ABCT) 57th Annual Convention,* Seattle, WA, United States.

Murrihy, R. C., Dedousis-Wallace, A., Ollendick, T.H., Greene, R.W., McAloon, J., Gill, S., Remond, L., Ellis, D.M., & Drysdale, S. (2019, July). Parent Management Training and Collaborative & Proactive Solutions: A randomised comparison trial for oppositional youth within an Australian population. In Dedousis-Wallace, A. (Chair), Collaborative and Proactive Solutions as an alternative to Parent Management training for youth with oppositional defiant disorder: A comparison of therapeutic models. *Paper symposium presented at the Ninth World Congress of Behavioural and Cognitive Therapies*, Berlin, Germany.

Murrihy, R. C., Dedousis-Wallace, A., Ollendick, T.H., Greene, R.W., McAloon, J., Gill, S., Remond, L., Ellis, D.M., & Drysdale, S. (2022, March). Parent Management Training and Collaborative & Proactive Solutions: A Randomised Comparison Trial for oppositional youth within an Australian population. In Farrell, L, J (Chair), Innovations in mental health interventions for children and adolescents: the power of parents, schools and digital technologies in meeting the mental health needs of Australian youth most at risk. *Virtual paper symposium presented at the Society for Mental Health Research Annual* conference, Hobart, Tasmania, Australia.

Contents

Tables

Figures

Abbreviations used:

ADHD - Attention Deficit Hyperactivity Disorder

ADIS-C/P - Anxiety Disorders Interview Schedule (Child and Parent Version)

ADIS CSR - Anxiety Disorders Interview Schedule, Clinician Severity Ratings

BPT - Behavioral Parent Training

CD - Conduct Disorder

CPS - Collaborative and Proactive Solutions

DBDRS - The Disruptive Behavior Disorders Rating Scale

DC- Defiant Children

DSM - Diagnostic Statistical Manual

HNC - Helping the Non-Compliant Child

IY - The Incredible Years

IY-PT - The Incredible Years, Parent Training

ODD - Oppositional Defiant Disorder

PCIT – Parent-Child Interaction Therapy

PMT - Parent Management Training

RcT - Randomised Comparison Trial

SES - Socioeconomic status

Triple P - Triple P-Positive Parenting Program

Abstract

Over the past two decades, there have been substantial advancements in our understanding of Oppositional Defiant Disorder (ODD). Research has revealed it to be more severe and impairing than previously recognized, which underscores the need for accessible, effective, and acceptable evidence-based treatments. Parent Management Training (PMT) has long been the gold standard for treating ODD and has demonstrated considerable success. However, significant limitations remain including the persistence of clinical-level symptoms in approximately 50% of treated youth, high dropout rates, and concerns about the durability of treatment effects. Moreover, societal shifts in parenting philosophies have led many families to prefer relationship and attachment-based approaches over traditional behavioral models like PMT. This shift has created a growing demand for alternative interventions that align with contemporary parental values while maintaining robust empirical support. This thesis addresses these gaps in a two-phase study that evaluates the effectiveness and acceptability of Collaborative and Proactive Solutions (CPS), compared to PMT, as an alternative treatment for youth with ODD.

Specifically, the aim of Phase 1 of this study was to replicate Ollendick et al.'s (2016) randomized controlled trial (RCT), which demonstrated that CPS was an effective treatment comparable to PMT for youth with ODD while extending the design to include real-world features. This hybrid design provides an ecologically valid context reflecting the conditions of routine community care. Key outcomes, including ODD symptomatology, global functioning, and remission rates, were assessed through structured interviews, clinician-reported global improvement scores, and parent-reported measures. In a sample of 160 children aged 7 to 14, Phase 1 results demonstrated that CPS was as effective as PMT for treating ODD, with treatment gains sustained for up to six months post-intervention. While most measures were in agreement, one clinician-rated global measure favored PMT. The

findings also showed that CPS can be successfully transported outside the U.S. Together, these results demonstrate CPS' efficacy, not only in controlled trials but also in settings that more closely reflect everyday clinical practice. Phase 2 aims to deepen our understanding of the feasibility of CPS compared to the existing treatment (PMT) by exploring parental perspectives on treatment acceptability. Treatment acceptability, a key indicator of dissatisfaction and attrition risk, was evaluated through adherence rates, satisfaction, perceived demands, relevance, and therapeutic alliance. The findings showed that, although PMT was slightly superior on several measures, families viewed both CPS and PMT as highly acceptable treatments, providing reassurance to clinicians and families about the suitability of this alternative approach.

In summary, this thesis provides strong evidence supporting CPS as a promising evidence-based therapy for youth with ODD when delivered in community settings, representing a meaningful advancement in a domain with limited treatment options. The availability of CPS offers a valuable clinical alternative for families who are non-responders to PMT, those who do not accept the PMT treatment model, or those who align more closely with the philosophical rationale of CPS.

Chapter 1: Background and Literature Review

General Introduction

Historically, oppositional defiant disorder (ODD) was viewed as a controversial childhood diagnosis that, if recognized at all, was regarded as a mild precursor to conduct disorder (CD; Burke, Derella, & Johnson, 2018; Loeber, Burke, & Pardini, 2009). However, in the past 15 years, ODD has emerged in the literature as a distinct disorder characterized by three underlying factors: irritability, defiant behavior, and vindictiveness (Stringaris & Goodman, 2009a). Each factor predicts unique developmental pathways that are far from benign and pose significant risks for developing internalizing and externalizing disorders (Leadbeater & Homel, 2015; Rowe et al., 2010). Moreover, research has revealed that ODD is associated with significant functional impairment in social, familial, and educational domains, and is predictive of lifelong adverse outcomes (Lawrence et al., 2015; Leadbeater & Ames, 2017). In all, the high prevalence and substantial impairment associated with ODD, combined with its long-term adverse outcomes, underscore the critical need for accessible, evidence-based interventions to support affected families (Kessler et al., 2012).

Research into treatment programs for youth with ODD has typically concentrated on variations of a single modality: Parent Management Training[1] (PMT; Kimonis, Fleming, & Murrihy, 2023). While PMT is widely regarded as a well-established, evidence-based treatment for ODD and the gold standard for treating disruptive behavior disorders (Eyberg, Nelson, & Boggs, 2008; Kaminski & Claussen, 2017), research shows that it fails to produce satisfactory results for 30-51% of families participating in treatment (Niec et al., 2016;

[1] Note that PMT is a term often used interchangeably with Behavioral Parent Training (BPT). For the purposes of clarity we will use the term PMT in this paper.

Ollendick et al., 2016; Scott, 2005; Webster-Stratton, 1990). Moreover, recent societal changes have elevated relationship-based parenting approaches into the public consciousness, leading some parents[2] to seek treatments that align with this philosophy (Coyne, 2013). Altogether, research highlighting the risks and burdens associated with ODD, suboptimal treatment responses, and shifts in parenting paradigms are driving researchers to explore alternative options that resonate with contemporary parental philosophies.

The central question posed by this thesis is: "Can an alternative treatment approach, such as Collaborative and Proactive Solutions (CPS), produce outcomes for youth with ODD that are comparable to or better than those achieved with PMT, while maintaining similar levels of acceptability and aligning with the needs and parenting philosophies of families seeking a different approach?". In answering this question, this thesis investigates the effectiveness and acceptability of an alternative treatment called CPS (Greene & Winkler, 2019) and compares it with the well-established treatment, PMT. Detailing a roadmap explaining why this research is needed, this thesis will begin with a review of the current state of the literature and the evolving classification of ODD. Historical context is given to explain why ODD was somewhat overlooked in the literature and how recent developments have seen it ascend to a prominent position in psychological research (Hawes et al., 2023).

Next an understanding of the impact of comorbidities, various developmental pathways, and the extensive adverse outcomes associated with ODD will highlight the significant burden the disorder places on society and underscore the need for more research into effective treatments (Burke et al., 2018). Lastly, the review will consider the

[2] In this paper, the term *parent* is used inclusively to represent all caregivers, recognizing the diverse roles of grandparents, other kinship care, foster families, and others who provide care and support to children.

shortcomings of the existing evidence-based treatment, PMT, and introduce an alternative treatment, CPS, that offers a potential choice for families with youth diagnosed with ODD. In short, this thesis aims to evaluate the effectiveness and acceptability of CPS compared to the gold standard PMT, and, in doing so, deliver clinically and theoretically significant contributions to the existing literature.

Overview of disruptive behavior disorders

Difficulties with emotional and behavioral self-control, resulting in oppositional and aggressive behaviors, are classified in the Diagnostic and Statistical Manual of Mental Disorders (DSM-5-TR) under the category of Disruptive, Impulse-Control, and Conduct Disorders (American Psychiatric Association [APA], 2022). The common characteristic of the disorders listed within this category is that they involve oppositional, disruptive, and, to varying degrees, aggressive behaviors that interfere with daily functioning and cause distress to the individual or those around them (Murrihy et al., 2017). According to the DSM-5-TR (APA, 2022), these disorders can be differentiated by the relative emphasis placed on emotional versus behavioral dysregulation. For example, conduct disorder (CD) is characterized primarily by behavioral symptoms, such as initiating physical fights, using weapons to inflict harm, theft, destruction of property, and running away from home - behaviors that violate societal rules and the rights of others (Kimonis et al., 2023). These actions may arise from impulsive emotional states or be premeditated and instrumental (APA, 2022; Urben et al., 2018). In contrast, intermittent explosive disorder (IED) is marked by a predominance of emotional dysregulation, particularly impulsive and explosive outbursts that are disproportionate to perceived provocation or environmental stressors. Oppositional defiant disorder (ODD), the primary focus of this thesis, is described by the DSM-5-TR as involving a more even distribution of emotional symptoms (e.g., persistent anger and

irritability) and behavioral symptoms (e.g., defiance and argumentativeness), situating it between CD and IED in terms of symptom emphasis (APA, 2022; Kimonis et al., 2023).

DSM-5-TR diagnostic criteria for ODD

The DSM-5-TR defines the three central characteristics of ODD as "a frequent and persistent pattern of angry/irritable mood, argumentative/defiant behavior, or vindictiveness" (APA, 2022, p. 523). Typically emerging in the pre and elementary school years (Ezpeleta et al., 2019) and remaining stable from childhood through adolescence (Boylan et al., 2007; Keenan et al., 2011; Maughan et al., 2004), youth with ODD exhibit a heterogeneous pattern of oppositional and antagonistic behavior (e.g., headstrong, argumentative and defiant actions, defying requests, annoying others, blaming others for their behaviors, and temper tantrums), alongside symptoms of emotional dysregulation such as irritability, touchiness, and chronic anger. (APA, 2022; Nock et al., 2007).

To meet the criteria for ODD, an individual must exhibit at least four symptoms of defiant behavior, spitefulness, and emotional dysregulation over a 6-month period, which results in functional impairment in the home (most common), school, or social setting (see Table 1; APA, 2022). While the emotional symptoms of being touchy, irritable, and easily annoyed can be the primary clinical symptomatology, they are insufficient to reach a diagnosis, and behavioral symptoms such as defiance with authority figures and argumentativeness must also be present. These behaviors are typically of less severity than is present in CD and IED and do not include more severe and aggressive behavior that violates the rights of others and societal norms (APA, 2022). That said, research has shown that the symptoms are problematic enough to cause significant issues in relationships with peers, family, and at school (Burke, Evans, & Carlson, 2022; Leadbeater & Ames, 2017).

It is not uncommon for an individual to exhibit ODD symptoms exclusively in one setting, typically at home, which is sufficient for a diagnosis in the DSM-5-TR (APA, 2022). Whilst ODD symptoms associated with multiple settings are associated with poorer outcomes, research explicitly examining ODD symptoms that manifest only in the home or school context has also demonstrated the presence of adverse outcomes (Drabick, Gadow, & Loney, 2007; Frick & Nigg, 2012; Munkvold et al., 2009; Youngstrom, 2011). In a study of 7,007 Norwegian children aged 7-9 years with ODD, Munkvold et al. (2009) found that symptoms reported by parents and teachers were independently associated with comorbidity and impaired functioning.

While existing research justifies the adequacy of relying on reports from a single informant (parent or teacher), the DSM-5-TR encourages assessment across multiple settings because inter-rater agreement between parents and teachers is modest at best (De Los Reyes et al., 2015; Drabick et al., 2007; Korsch & Petermann, 2014; Lavigne et al., 2015). Also, impairment tends to be more severe when symptoms are experienced across settings (Drabick et al., 2007; Youngstrom, 2011), a finding reflected in the DSM-5-TR through the inclusion of a severity specifier for an ODD diagnosis. This specifier categorizes an individual's presentation from mild to severe, depending on the number of settings in which the symptoms are evident (APA, 2022).

International Classification of Diseases-11 criteria for ODD

It is important to note that another significant diagnostic system published by the World Health Organisation and used globally, the International Classification of Diseases-11 (ICD-11; 2019), shows similar ODD diagnostic criteria to the DSM (see Table 1 for a comparison of DSM-5-TR and ICD-11 criteria). However, it is noteworthy that the two systems differ in their approach to specifiers (World Health Organization [WHO], 2019).

While DSM-5-TR includes a severity specifier based on the number of settings where symptoms are experienced, ICD-11 does not. Instead, ICD-11 consists of two specifiers unique to this diagnostic system: ODD 'with and without chronic irritability-anger' and ODD 'with limited prosocial emotions' (LPE). The ODD 'with chronic irritability-anger' specifier requires an individual to have chronic irritability and anger nearly every day (versus discrete periods in the 'without chronic irritability-anger' specifier), and these symptoms must be observed across multiple settings and relationships. These individuals often feel angry and resentful, are oversensitive to provocations, frequently lose their temper, and exhibit destructive behaviors. The ICD-11 states that the 'with chronic irritability-anger specifier' is not a more severe presentation than the non-chronic, but it does represent a pattern of mood dysregulation that is significant in that it predicts the later onset of internalizing disorders (Evans et al., 2017; Stringaris & Goodman, 2009a; Whelan et al., 2013; WHO, 2019). This chronic irritability specifier in the ICD-11 has attracted some controversy with this classification. The DSM, by contrast, has classified chronic irritability under a mood disorder category (i.e., disruptive mood dysregulation disorder) to reflect the mood-related core of this symptom (Hawes et al., 2023).

The second specifier in the ICD-11 is ODD 'with limited prosocial emotions' (LPE), also widely known as callous and unemotional traits (CU traits; WHO, 2019). This specifier is almost the same as the CU traits specifier attached to a CD diagnosis in the DSM, except for one criterion: insensitivity to punishment. Characteristics of this LPE specifier include limited or absent empathy or concern about one's impact on others; limited or shallow emotional expression (particularly positive emotions towards others); minimal remorse or shame over one's behavior; and little concern over poor performance at school or work., By including this specifier in the ICD-11 ODD category, the authors highlight that CU traits are present in a subset of youth with ODD, not just CD. While this represents a small minority of

individuals with ODD, it is significant in that it is associated with a more persistent and severe trajectory of antisocial outcomes that may eventuate in the diagnosis of CD (see Frick et al., 2014 for discussion; WHO, 2019). Notably, the DSM-5-TR limited the use of this specifier to CD only until more information was known about whether this labeling would have stigmatizing effects (Hawes et al., 2023).

Table 1.

Comparison of DSM-5-TR and ICD-11 Diagnostic Criteria for Oppositional Defiant Disorder

DSM-5-TR	ICD-11
A pattern of angry/irritable mood, argumentative/defiant behavior, or vindictiveness lasting at least 6 months. Includes four or more of the following in interactions with at least one non-sibling. Angry/Irritable Mood 1. Often loses temper. 2. Is often touchy or easily annoyed. 3. Is often angry and resentful. Argumentative/Defiant Behavior 4. Often argues with adults (for children/adolescents) or authority figures. 5. Often actively defies or refuses to comply with requests from authority figures or with rules. 6. Often deliberately annoys others. 7. Often blames others for own mistakes or misbehavior. Vindictiveness 8. Has been spiteful or vindictive at least twice within the past 6 months. *Note.* The persistence and frequency of these behaviors should be used to distinguish a behavior that is within normal limits from a behavior that is symptomatic. Age-related guidelines are provided. The disturbance in behavior is associated with distress in the individual or others in his or her immediate social context or it impacts negatively on social, educational, occupational. The behaviors do not occur exclusively during the course of a psychotic, substance use, depressive, or bipolar disorder. Also, the criteria are not met for disruptive mood dysregulation disorder. Specifier: *Mild* - Symptoms are confined to one setting. *Moderate* - Some symptoms are present in at least two settings. *Severe* - Some symptoms are present in three or more settings.	A pattern of markedly noncompliant, defiant, and disobedient behavior that is atypical for individuals of comparable age, developmental level, gender, and sociocultural context. Persistent difficulty getting along with others. Provocative, spiteful, or vindictive behavior. Extreme irritability or anger. The behavior pattern has persisted for an extended period of time (e.g., 6 months or more). The oppositional behaviors are not better accounted for by relational problems between the individual and a particular authority figure. The behavior pattern results in significant impairment in personal, family, social, educational or other important areas of functioning. Specifier: With chronic irritability-anger: Prevailing, persistent irritable mood or anger atypical for age, developmental level, gender and sociocultural context. Chronic irritability-anger occurs nearly every day, is not limited to discrete periods, is observable across multiple settings or domains, and is not exclusive to relationships with parents or guardians. With limited prosocial emotions: Limited or absent empathy or sensitivity to others' feelings; limited or absent remorse, shame, or guilt over one's own behavior; limited or shallow expression of emotions, particularly positive or loving feelings toward others. The pattern is persistent over time (e.g., at least 1 year) and across relationships.

ODD prevalence rates

Several epidemiological studies have investigated the global prevalence rates of youth with ODD in community samples, offering consistent findings. In the largest of these studies, Polanczyk et al. (2015) examined 28 studies, including both Western and non-Western countries. They found a pooled prevalence of 3.6% for youth aged 12-18 years. Canino et al. (2010) examined a broader age range in their systematic review of 25 studies, focusing on youth up to 18 years of age, and reported a similar pooled prevalence of 3.3%. Shifting attention to younger children aged 1-7 years diagnosed with ODD, Vasileva et al. (2021) reviewed data from 8 countries and 18,282 children, finding a pooled prevalence of 4.9%, slightly higher than the studies relying on older age groups. One notable study that warrants attention is the landmark National Comorbidity Survey Replication, conducted in the U.S. (Kessler et al., 2012). This face-to-face household survey was carried out with a representative sample of 10,148 adolescents aged 13-17 years, reporting a 30-day prevalence rate of 2.9% for youth with ODD (Kessler et al., 2012). Altogether, these studies encompass a wide range of countries and age groups, and reassuringly, they have all reported similar pooled prevalence rates of ODD, which fall within the range of 2.9-4.9%.

The studies above generally rely on point prevalence, the proportion of a population with a particular disorder at a specific time. In contrast, examining the lifetime prevalence rates of ODD offers a different perspective. As part of the landmark National Comorbidity Survey Replication, the lifetime prevalence of ODD was retrospectively assessed in 3,199 adults (Nock et al., 2007). While the inadequacies of memory can bias retrospective reporting, this study captures more than one point in time and, therefore, might provide a more complete picture of prevalence (Schacter, 1999). As expected, the estimated lifetime prevalence of ODD in this sample was considerably higher than the point prevalence rates at 10.2% (Nock et al., 2007). Possibly, the true prevalence of ODD falls somewhere between

these estimates. Lastly, a review by Boylan et al. of clinical samples, which included six studies, reported prevalence rates ranging from 28% to 65% (2007). Altogether, these studies reflect high prevalence, highlighting that ODD is one of the most common disorders of childhood and adolescence (Canino et al., 2010; Demmer et al., 2017; Kessler et al., 2012; Lawrence et al., 2015; Mohammadi et al., 2020; Nock et al., 2007; Polanczyk et al., 2015; Vasileva et al., 2021).

Gender and ODD

Research shows that while other externalizing disorders (i.e., attention deficit hyperactivity disorder [ADHD] and CD) are considered to be male-dominated with ratios of 3:1, less of a gender divide appears to exist in ODD, with a male-to-female ratio of 1.05-1.59:1 (see Demmer et al., 2017 for discussion; Lawrence et al., 2015; Mohammadi et al., 2020; Nock et al., 2007; Vasileva et al., 2021). Specifically, Demmer and colleagues (2017) reviewed gender differences in ODD in 18 studies of 6-13 year olds. They found that boys were significantly more likely to have ODD than girls (1.59:1). However, this finding applied to Western countries and not non-Western countries, suggesting that cultural differences may influence this gender discrepancy. The Second Child and Adolescent Survey of Mental Health and Well-being, conducted in Australia, assessed 6,300 Australian families with 4-17 year olds using the Diagnostic Interview Schedule for Children Version IV (DISC-IV). This study revealed a similar ratio of 1.24:1 in favor of males. Of note, while this study assessed participants with DISC-IV, the use of lay interviewers meant that an actual diagnosis of ODD could not be reached because clinical judgment is required to determine if the frequency of behaviors is normative (Lawrence et al., 2015). Despite widespread agreement on this male-to-female ratio (1.05-1.59:1), it should be noted that one cross-sectional population-based study of 7,007 children in Norway found a variation, reporting a significantly higher ratio of ODD in boys than girls (4% vs. 1.3%) compared to other studies (Munkvold, Lundervold, &

Manger, 2011). However, their reliance on parent-report questionnaires instead of face-to-face interviews is a limitation compared to previous research. Additionally, the narrow age range of the sample, limited to 7-9 year olds, may restrict its generalizability (Munkvold et al., 2011). Furthermore, there is evidence suggesting that sex differences in youth with ODD dissipate with age, with the prevalence rates between boys and girls narrowing by adolescence until they reach equal rates (Boylan et al., 2007).

While several possibilities have been proposed to explain the higher frequency of ODD diagnoses in boys compared to girls, one possibility may lie in the diagnostic criteria's applicability to girls. Researchers have argued that the DSM may not accurately capture the full range of symptoms associated with ODD in females and that sex-specific criteria should be included (Waschbusch & King, 2006). While some research supports this contention, the diminishing gender disparity during adolescence suggests that gender criteria alone cannot be the sole explanation (Waschbusch & King, 2006). Regardless of gender differences, the impact of the disorder on boys and girls, in terms of burden and service utilization, has been reported to be similar (Ezpeleta et al., 2014).

Cultural considerations for ODD

Diagnosing ODD requires clinical judgment about whether symptoms are more frequent and intense than typical for a child's developmental stage, gender, and cultural background (APA, 2022). However, what constitutes "typical" behaviour is culturally influenced, and some researchers question whether the ODD construct is universally valid (Bredström, 2019; see Burke et al., 2018 for discussion; Canino et al., 2010; Weisz, Weiss, et al., 2006a). Cross-national studies suggest similar ODD prevalence rates across countries (Canino et al., 2010; Polanczyk et al., 2015), supporting some degree of cross-cultural validity. However, critics argue that such studies may obscure important cultural variations in

symptom expression and meaning (Weisz et al., 2006a). Weisz and colleagues assert that "the fact that one can tally items of any syndrome scale in the individuals of any nation does not necessarily mean that the syndrome is equally valid for each nation" (2006a, p. 1098). They argue that U.S.-derived syndromes should not be used unless their validity in other cultures is confirmed (Weisz et al., 2006a). For example, Weisz and colleagues (2006a) compared U.S. and Thai adolescents and found distinct symptom patterns linked to cultural beliefs, such as religious opposition to aggression in Thailand. These findings highlight how parenting norms and societal expectations shape how disruptive behaviours manifest and are understood across contexts. Findings from this study supported the idea that various parenting approaches and beliefs influence how symptoms coalesce into syndromes (Weisz et al., 2006a). This research underlines that homogeneity in the expression of ODD-related symptoms across cultures cannot be assumed. Thus, the transportability of treatments across cultures remains an important consideration when evaluating treatment outcomes.

To conclude this section, diagnostic systems (DSM and ICD) used to classify ODD are similar in terms of criteria and include symptoms of irritability, defiance, and vindictiveness. Research consistently identifies ODD as a highly prevalent disorder, with some evidence indicating that similar rates are seen internationally. However, other studies have countered that the full cultural expressions of ODD symptoms may not be captured by relying on DSM criteria. Lastly, while externalizing disorders are generally more common in boys, this gender gap narrows in ODD and often dissipates by adolescence.

The History and Evolution of Oppositional Defiant Disorder

Over the past two decades, the conceptualization of ODD has evolved significantly (Kimonis et al., 2023). Historically, ODD had been considered a mild or benign condition that risked pathologizing normal childhood behavior and was only relevant insofar as it

represents a prodrome for CD (Loeber et al., 2009, p. 293; see Frick & Nigg, 2012; Maughan et al., 2004; Moffitt et al., 2008; Rowe et al., 2010 for discussions). Regrettably, these widely-held assumptions about ODD, discussed in further detail below, likely slowed research into the disorder. However, as these beliefs were gradually debunked, research into ODD has accelerated, and the understanding of ODD has grown considerably.

The controversy over ODD: Is it a medicalization of normal childhood behavior?

"The most persistent diagnostic question regarding ODD has been whether or not it should even exist" (Burke et al., 2018, p. 21). One aspect of this controversy was centered on whether ODD was a valid diagnosis in and of itself, or if it pathologized normal, transient childhood behaviors (Frick & Nigg, 2012). For example, it has been argued that temper tantrums are normative behavior for children that exist on a spectrum and should not be profiled as criteria of a psychological disorder (see Burke et al., 2022 for discussion).

Nonetheless, empirical evidence has consistently supported ODD as a valid diagnosis, with studies demonstrating that ODD symptomatology can be clearly distinguished from normative behavior (Copeland et al., 2013; Keenan & Wakschlag, 2004). For instance, to test the discriminant validity of the DSM-4 symptoms of ODD, researchers compared a group of children aged 2-5 years who were referred to a preschool behavior problems clinic with a comparison group of non-referred children attending a pediatric clinic (Keenan & Wakschlag, 2004). Results showed the rate of ODD symptoms was significantly higher in the referred children, ranging from 32-72%, in comparison to 0-8% in the non-referred group. Focusing on the 'loses temper' item in isolation (i.e., persistent, frequent tantrums observed several times daily), 72% of referred children were endorsed as meeting this criterion compared to 4% in the non-referred group. Ultimately, only one child in the non-referred group met the diagnostic criteria for ODD, compared with 42% of the referred group. In all, results

collectively support the discriminative validity of the DSM ODD diagnosis and serve to debunk the myth that the frequency criteria required for diagnosing ODD are reflective of normal childhood behavior.

The emergence of ODD as a distinct disorder

Developmental pathways for ODD. The second impediment to research progress in the understanding and conceptualization of ODD is the historical perception that ODD and CD are not distinct disorders. Instead, ODD has been viewed as a developmental antecedent to CD (APA, 1994). This perception likely stems from shared risk factors and high comorbidity between the two conditions (Burke et al., 2022; Rowe et al., 2010), a view further reinforced by the DSM, which maintained a diagnostic hierarchy until DSM-5. Under this system, ODD could not coexist with CD and was only diagnosed in the absence of CD (APA, 1994). Essentially, a diagnosis of CD was presumed to encompass ODD, suggesting they existed on the same continuum (APA, 1994). Consequently, researchers adopted the practice of collapsing ODD and CD into a unitary category, which has hindered research into ODD for decades (Hawes et al., 2023). This practice has had considerable implications for how ODD has been conceptualized placing a strong research focus on defiant behaviors and their trajectory while overlooking the affective components of ODD (Burke et al., 2018).

Moving beyond this earlier understanding, a surge of research over the past 15 years consistently refutes the idea that ODD is simply a milder variant of CD (Biederman, Petty, Monuteaux, et al., 2008a; Evans et al., 2017; Kimonis et al., 2023; Rowe et al., 2010). Studies investigating ODD's underlying factor structures, developmental pathways, and adverse health outcomes provide strong evidence that ODD is a distinct disorder (see Burke et al., 2022, for discussion). Starting with a closer examination of the developmental course, it is evident that ODD does not always lead to CD, as would be expected if ODD were a

precursor to CD. In a longitudinal study involving 1,420 children aged 9-16 years, Rowe et al. (2010) found that 60% of children diagnosed with ODD did not subsequently develop CD. Conversely, working backward, 45% of children diagnosed with CD did not have a prior history of ODD (Rowe et al., 2010).

Furthermore, Nock and colleagues' (2007) retrospective study on lifetime prevalence reported similar figures to those of Rowe and colleagues (2010): 42% of individuals with ODD went on to develop CD. Although, as previously discussed, this study is limited by potential memory bias. Overall, these studies underscore that the hypothesized linear progression of ODD to CD from childhood through adolescence is less common than previously believed. Only a subgroup of children (40-57%) have been shown to develop ODD in early childhood and progress to CD in middle childhood or adolescence in a sequential fashion (Biederman et al., 2008a; 2008b; Maughan et al., 2004; Nock et al., 2007; Rowe et al., 2010). In all, this research highlights that ODD is a distinct disorder that merits individual consideration and is not simply a developmental precursor of the behaviorally-based CD.

Factor analytic studies: The identification of three dimensions of ODD. ODD has been further differentiated from CD through the recognition that ODD comprises a three-factor model, with each sub-dimension contributing to distinct psychological outcomes (Althoff et al., 2014; Stringaris & Goodman, 2009a; Whelan et al., 2013). It is noted that while researchers have differed in naming the factors, they have essentially followed the three categories defined by Stringaris et al. (2009b; Leadbetter & Homel, 2015). This improved understanding of the factor structure underlying ODD led to a significant revision in the categorization of symptoms between DSM-4 and DSM-5 (Loeber et al., 2009; Ollendick et al., 2018). Previously characterized primarily by a pattern of negativistic, hostile, and defiant behavior, the current diagnostic category of ODD now classifies symptoms into three types:

angry and irritable mood, argumentative behavior, and vindictiveness (APA, 2022). The heightened emphasis on emotional symptoms in the diagnosis of ODD sets it apart from the behaviorally defined CD diagnosis, which focuses exclusively on aggressive behaviors violating societal norms or other people's rights.

Of particular interest in the evolving conceptualization of ODD is the irritability dimension, which has garnered significant attention from researchers (Evans et al., 2017). Both cross-sectional (Stringaris & Goodman, 2009b) and longitudinal studies (Dery et al., 2017; Stringaris & Goodman, 2009a; Whelan et al., 2013) have shown a unique association between the irritability dimension of ODD and anxiety and depression. For example, Stringaris and Goodman's longitudinal study involving 7,912 children aged 5-16 years, combining data from two national British surveys, revealed that different dimensions predicted diverse outcomes (2009a). They reported the irritable dimension is associated with later depression and anxiety, while the other two dimensions, termed 'hurtful and headstrong' in their study, predict CD (Stringaris & Goodman, 2009a). In short, irritability predicts internalizing and externalizing disorders, whereas defiant behaviors are associated with a greater risk of externalizing disorders such as substance abuse and antisocial personality disorder (Biederman et al., 2008a; Biederman, Petty, Dolan, et al., 2008; Copeland et al., 2009; Leadbeater & Homel, 2015; Rowe et al., 2010). Thus, categorizing ODD solely as a behavioral disorder with pathways linked only to externalizing disorders has now been challenged, and a broader view of ODD that incorporates emotional symptoms and associated internalizing disorders offers a renewed conceptualization of the disorder (Burke et al., 2018).

In summary, earlier beliefs that ODD was benign and merely a mild version of CD slowed research progress by leading researchers to combine youth with ODD and CD into a single category of disruptive behavior disorders. This approach significantly influenced how ODD was studied, conceptualized, and treated. Consequently, ODD was viewed as a

behavioral disorder associated with developmental pathways that included CD, substance use disorders, or antisocial personality disorder. However, researchers have since shifted away from this perspective. By examining ODD as a distinct entity, significant progress has been made in conceptualizing this disorder, including the revelation of three dimensions underlying ODD and their distinct pathways to internalizing and externalizing disorders. This deepening understanding of ODD underlines the unique long-term outcomes associated with the disorder and highlights the imperative for early intervention in treatment (Ezpeleta et al., 2019).

Comorbidity, ODD Burden, Help-Seeking and Treatment Imperatives

When considering the burden associated with ODD, it is essential to recognize that ODD is comorbid with several additional disorders, including ADHD, anxiety-related disorders, conduct disorders, mood disorders, and substance use disorders (Kimonis et al., 2023). This comorbidity increases the complexity of presentations, the degree of impairment, and the length of treatment required (Burke et al., 2022). Nock and colleagues, in a study of lifetime prevalence, provided a significant step forward in the conceptualization of ODD when they revealed that it is temporally primary to most other disorders except for ADHD and separation anxiety disorder (SAD; Nock et al., 2007). Indeed, as many as 71-99% of youth with ODD will meet the criteria for at least one other comorbid disorder (Mohammadi et al., 2020; Nock et al., 2007; Ollendick et al., 2016), and 83% will have two comorbid disorders in addition to ODD (Ollendick et al., 2016). Thus, ODD represents a heightened risk, even after controlling for CD, for a wide range of secondary mental health disorders (Burke et al., 2005; Nock et al., 2007; Rowe et al., 2010). This finding prompted Nock et al. to conclude that ODD is a “risk marker” for significant physical and emotional impairment (2007, p. 709).

Attention deficit hyperactivity disorder is one of the most common mental health conditions to co-occur with ODD. However, an accurate picture regarding the comorbidity between ADHD and ODD remains unclear - rates vary widely across studies from 20-80% - most likely due to differences in measurement (Greene et al., 2002; Mohammadi et al., 2020; Nock et al., 2007; Ollendick et al., 2016; Reale et al., 2017). To extract comorbidity data on ADHD and ODD, Reale and colleagues (2017) examined the medical records of youth across 18 ADHD centers based in Italy. These centers were established to ensure the appropriate management of children aged 5-17 years with ADHD. Referred children were assessed by a qualified psychiatric and psychological team using rigorous diagnostic methods, including cognitive exams, structured interviews, and parent and teacher-rated questionnaires. The authors reported that 20% of the participants with ADHD also met ODD criteria. This figure is notably lower than other studies (Greene et al., 2002; Nock et al., 2007; Ollendick et al., 2016), though similar to Mohammadi et al. (2020), which the authors attribute to the generally low rates of externalizing disorders found in Italy (Reale et al., 2017).

In contrast, other studies have reported ODD and ADHD comorbidity rates to be much higher, ranging from 68-80% (Greene et al., 2002; Nock et al., 2007; Ollendick et al., 2016). Taking a retrospective perspective, researchers reported that 68% of individuals with ODD also received an ADHD diagnosis (Nock et al., 2007). Longitudinal studies of both genders have shown that ODD and ADHD, compared to ADHD alone, confer additional risks, such as increased rates of major depression over the long term, higher school suspensions (girls only), and placement in special classes (girls only; Biederman et al., 2008a; 2008b). Thus, comorbid ODD and ADHD is associated with greater levels of morbidity and impairment compared to ADHD alone (Biederman et al., 2008a; 2008b; Tseng, Kawabata, & Gau, 2011).

Cross-sectional studies found that internalizing disorders were also highly comorbid with ODD (Greene et al., 2002; Mohammadi et al., 2020; Ollendick et al., 2016). Studies examining the co-occurrence of ODD with anxiety found rates ranging from 38-62%, with the highest rates observed in separation anxiety disorder (SAD), generalized anxiety disorder (GAD), and obsessive-compulsive disorder (OCD), respectively (Greene et al., 2002; Mohammadi et al., 2020; Ollendick et al., 2016). Comorbidity rates of ODD with depression are somewhat lower, ranging from 11-45% (Greene et al., 2002; Mohammadi et al., 2020; Ollendick et al., 2016). Moreover, researchers have reported that among those with a lifetime prevalence of ODD, almost half (47.2%) also had a substance use disorder (Nock et al., 2007). In all, the presence of comorbidity with CD, ADHD, anxiety, depression, and substance use disorder highlights the complexity of this disorder, and thus, the associated burden (Burke et al., 2022).

ODD-related cost and burden on society

Studies attempting to quantify the financial burden of ODD have been less than optimal. The majority of studies estimating costs have collapsed CD and ODD into one category, rendering it impossible to quantify ODD alone (see Christenson et al., 2016 for review; Foster, 2010). To illustrate, a review by Christenson et al. (2016) examining the cost of disruptive behavior disorders in seven studies found that only two of these studies had analyzed ODD. Also, these studies typically do not estimate costs for all relevant outcomes. As discussed previously, longitudinal studies investigating the developmental trajectory of ODD have shown that whilst both ODD and CD increase the risk for behavioral disorders later in life (i.e. CD, substance use disorders, and antisocial personality disorder), there is a unique risk incurred in ODD for the development of emotional disorders (i.e. anxiety and depression) in adulthood (Biederman et al., 2008a, 2008b; Copeland et al., 2009; Rowe et al.,

2010). Thus, when considering the level of burden associated with ODD, studies should undertake calculations that, in addition to behavioral outcomes, include the costs of comorbid depression and anxiety.

Unfortunately, most studies have included an estimate of burden based on a narrow selection of several direct costs and often omit indirect costs associated with ODD (Beecham, 2014). Direct costs related to ODD can consist of those derived from juvenile justice, child welfare, special education, schooling, crime, drug use, and the cost of treatment. In contrast, indirect costs include parental/caregiver strain and loss of productivity, sub-optimal performance at school, and loss of career potential (Foster et al., 2010). In one of the few studies investigating the cost of ODD, Foster and Jones (2005) reported findings from the Fast Track project, which followed children over seven years and revealed ODD's public and treatment costs (2005). The public cost of ODD (including treatments, juvenile justice, child welfare, and special education) across seven years was approximately $US32,000 per child (Foster & Jones, 2005). It should be noted that this study was constrained by relying on public costs only and the omission of a more comprehensive estimate of direct and indirect costs (Beecham, 2014).

Burden of disease studies

Another approach to understanding ODD's broader impact on society is the burden of disease studies which measure the impact of diseases and injuries on a population by quantifying the disability caused by various health conditions (Australian Institute of Health and Welfare [AIHW], 2023). Each population's burden is calculated using the metric of a DALY or disability-adjusted life years. DALY measures the overall health burden from ODD, where one DALY is one year of healthy life lost to ODD. Specifically, it measures how much a health condition reduces a person's ability to live a full and healthy life. A high

DALY equates to a significant burden on the population. For children aged 5-14 years in Australia, conduct problems were reported as one of the top five leading causes of societal burden over the life course (5.5% of the total burden of disease; AIHW, 2023). However, a limitation of this study was that ODD was not analyzed separately, with these figures representing all children with conduct problems.

Functional impairments associated with ODD

For youth with ODD, functional deficits across various life domains contribute to the overall ODD-related burden. Across several studies, youth reported that ODD had a significantly negative impact on their academic (Lawrence et al; 2015; Leadbeater & Ames, 2017) and occupational functioning (Leadbeater & Ames, 2017), friendships (Burke, Rowe, & Boylan., 2014; Lawrence et al., 2015), and family life (Lawrence et al., 2015). These findings were replicated by Greene et al. (2002) who found that youth with ODD had significantly lower scores on a global measure of social, occupational, and psychological functioning (Global Assessment of Functioning) when compared to clinically referred youth with neither ODD nor CD (Greene et al., 2002). Moreover, these problems in social and educational functioning appear to persist into adulthood, even, in some instances, worsening over time (Leadbeater & Ames, 2017). Symptoms of ODD have been shown to predict later interpersonal difficulties with family, romantic partners, and friends (Burke et al., 2014), as well as increasingly negative effects on academic and occupational outcomes in adulthood (Leadbeater & Ames, 2017).

In all, considering the complexity of comorbid ODD presentations, the burden on caregivers, and impairment across all life domains into adulthood, it is not surprising that ODD (alongside other externalizing disorders) is one of the most common reasons that families present to primary care services, mental health specialists, hospitals and school

counselors (AIHW, 2009; Costello et al., 2014; Lawrence et al., 2015; Merikangas et al., 2011). This review underscores the magnitude of the problem caused by ODD and the critical need for early intervention with evidence-based programs to mitigate this trajectory (Kimonis et al., 2023).

Evidence-Based Treatments for ODD: An Overview of Parent Management Training

As the field of psychology radically shifted from psychodynamic models toward behaviorism in the 1960s, the approach to treating child behavior problems followed suit (Fisher & Gilliam, 2012; Shaffer et al., 2001). Parent Management Training, which, as the name suggests, focuses on training parents, emerged from a "loose collaboration" between researchers Robert Wahler, Constance Hanf, and Gerald Patterson (Patterson, 2005, p. 1). An early study by Wahler (1969), which examined parents using differential attention and time-out, inspired Hanf and Patterson to develop early versions of what is now known as PMT (or, as highlighted earlier, Behavioral Parent Training [BPT]; Eyberg, 1992). These early versions of PMT were based on the complementary theoretical principles of operant conditioning and social learning theory, both rooted in a behaviorist framework and described the acquisition, shaping, and maintenance of learnt behaviors (Kaminski & Claussen, 2017). The following section will provide an overview of the theoretical underpinnings of the PMT model and present a selection of the most prominent ‘branded’ PMT interventions. Next, the evidence supporting PMT will be discussed, followed by an examination of the criticisms and limitations of the PMT model.

Operant conditioning

First described by B. F. Skinner, the theory of operant conditioning posits that the likelihood of a behavior recurring in the future is directly influenced by the contingencies that follow it (Skinner, 1938). In other words, behavior is shaped and maintained through

consequences. A response that increases the probability of a stimulus-response pattern reoccurring (e.g., a parent refusing a request [stimulus], followed by a child having a tantrum [response]) is termed a reinforcer (Leineman et al., 2018). For example, when a child throws a tantrum after being refused a sweet and the parent responds with undivided attention, even if it involves scolding the child, that attention acts as reinforcement. This increases the likelihood of the behavior being repeated.

Conversely, an action that reduces the likelihood of a stimulus-response pattern occurring again is termed a punisher (Fisher & Gilliam, 2012). In addressing defiant behavior through operant conditioning, strategies may include ignoring the behavior (neutral operant), using time-out (punishment), or applying differential reinforcement to promote alternative prosocial behaviors (e.g., parents praising the child for immediately complying with requests). Kazdin (2005) emphasized the importance of factors that strengthen reinforcers, such as delivering rewards or punishers with immediacy and consistency and ensuring actions are proportionate to the issue.

Social learning theory

Social learning theory (SLT), developed by Albert Bandura, incorporates operant principles and further emphasizes that young people learn through observation and imitation (Bandura & Walters, 1963). With SLT, learning not only occurs via contingencies experienced directly by the child but can also occur vicariously through observing others and the consequences of their actions. For example, the child watches their parent's behavior, and based on whether it is punished or reinforced, they become motivated to imitate or avoid it. Specifically, parents in PMT draw on SLT by modeling prosocial behaviors to their children. The child imitates these behaviors, which are subsequently reinforced by parents who shape and maintain the child’s behavior using operant principles of praise or rewards (Reitman &

McMahon, 2013). An example of social learning principles in action can be seen in Patterson's coercion model.

Coercion model

Hanf and Patterson began their work in this field by devising unique coding systems and carefully quantifying interactions between parents and aggressive school-aged children during intensive observations over time (Roberts, 2008). These systematic observations of maladaptive parent-child interaction led to the eventual development of Patterson's coercion model, which has significantly influenced contemporary treatment literature for child behavior problems (Patterson, 1982). The coercion model is a fundamental theory upon which all PMT therapies are based (Kaehler, Jacobs, & Jones, 2016). It describes the cycle by which disruptive behavior develops and is maintained over time through maladaptive patterns in the parent-child dyad (Patterson, 1982). It is called a 'coercion' model because both the parent and child use coercive behavior in an attempt to control each other. For those with genetic or temperamental vulnerabilities, the risk of developing conduct problems increases in family contexts that employ inconsistent or overly harsh discipline (Kaehler et al., 2016). According to the coercion model, a child makes a demand, and when the parent refuses, the child escalates this demand. If the parent acquiesces to the child, their response reinforces the child's defiant behavior.

Similarly, by backing down to the child's demand, the parent is reinforced by the temporary return to homeostasis. However, over time, the parent becomes increasingly frustrated with their ineffectiveness as a parent, leading them to regain authority by becoming harsher. Hence, the child and parent become trapped in a coercion cycle through these reinforcement traps, with escalation from both parties resulting in an ongoing destructive pattern (Patterson, 1982; Scott & Dadds, 2009). Moreover, as negative behavior escalates,

there is less positive reinforcement for desirable and prosocial behaviors. Dadds and Tully (2019) emphasized that these negative interactions, imbued with parental attention toward the child, can be considered “attachment-rich” (p. 6). Ironically, they create a bond and a sense of closeness that increases the likelihood of this undesirable behavior occurring again.

Hanf model programs

Influenced by Patterson’s coercive cycle, Hanf developed a treatment for disruptive children that relied on social learning theory and operant behaviorism principles and addressed the maladaptive parent-child interactions outlined in the coercion model (Kaehler et al., 2016). Hanf's seminal work led to the later development of many well-known programs that are in use today. These are recognized as Hanf model programs, primarily created by her graduate students (Kaehler et al., 2016). Hanf model programs include McMahon and Forehand's Helping the Noncompliant Child (HNC), Webster-Stratton's Incredible Years (IY), Eyberg's Parent-Child Interaction Therapy (PCIT), and the program used in this study, Barkley's Defiant Children (DC; Reitman & McMahon, 2013). Unlike Hanf’s original program, which focused on training parents only, these adaptations typically included the child in skills practice. While the programs differ somewhat, they are all based on social learning theory and include behavioral, cognitive, and attachment principles (Sanders et al., 2014). Other successful PMT programs include Triple P and Patterson’s PMT Oregon model (Eyberg et al., 2008). They aim to increase positive attention for prosocial behavior, withdraw it for unhelpful behavior, issue clear instructions, and implement consistent and proportionate contingencies for non-compliance. Similar methods are used across therapies to achieve these goals, such as modeling, role-playing, guided practice, and homework tasks (Eyberg, 1992). The next section will provide a brief summary of a selection of the most commonly used PMT programs; highlighting the goals, age range, formats and timeframes of each program.

Parent-Child Interaction Therapy (Eyberg & Robinson, 1982)

Parent Child Interaction Therapy (PCIT) is a parent training program that adopts Hanf's two-phase training format (Eyberg et al., 2008). Initially targeted at younger children, PCIT training has since been broadened to also include those in the pre-teen years (Booker & Matson, 2023). PCIT therapy generally extends over a longer period, ranging from 12-16 sessions, and has a stronger focus on child play in therapy (Eyberg et al., 2008). Baumrind's developmental theory is a fundamental underpinning of PCIT. This model posits that authoritative parenting is associated with fewer behavior problems than authoritarian or permissive parenting (Alizadeh et al., 2011; Querido et al., 2002). In supporting an authoritative approach to parenting, attachment, and social learning theory principles were incorporated in PCIT (Eyberg et al., 2010). In the first phase of PCIT therapy, child-directed interaction (CDI), the parent allows the child to lead the play while practicing skills in positive attention, active ignoring, and the differential application of these skills to positive and negative behaviors. CDI creates a mutually reinforcing relationship and lays the foundation for the discipline skills in phase two (parent-directed interaction [PDI]; Lieneman et al., 2018). In PCIT, the therapist demonstrates the technique to the parent, who then practices it with the child during child-led play activities (Eyberg et al., 2010). The therapist observes from another room and provides live feedback using a bug-in-the-ear method. Parents may progress to the next skill in therapy once the set performance criteria have been met (Lieneman et al., 2018).

Incredible Years (Webster-Stratton, 1981)

Another Hanf legacy is Incredible Years (IY), a parent, teacher, and child group training program to reduce conduct problems in youth aged 0-13 (Menting, Orobio de Castro, & Matthys, 2013; Webster-Stratton & Reid, 2010). The goals of IY are to (a) strengthen the

parent-child bond, increase parent confidence, and impart positive parenting skills; (b) coach parents to use play to foster their child's social-emotional skills; and (c) improve parental self-control and reduce the use of critical and abusive discipline (Webster-Stratton & Reid, 2010). Although the principles are similar to many Hanf-based programs, the format of training delivery in IY differs (Lieneman et al., 2018). Over 13 weeks, parents attend weekly 2-hour group sessions and view 250 video vignettes that model parenting skills. Within this therapist-supervised group session, parents engage in focused discussions, problem-solving, and collaborative learning (Kaur et al., 2022). IY also includes complementary training curricula targeted at children and teachers (Eyberg et al., 2008).

Triple P: Positive Parenting Program (Sanders & Glynn, 1981)

Triple P expands on the individual or group parent training model by offering a multilevel approach, consisting of five interventions in total. These include universal interventions (targeted at the general population) and indicated interventions (targeted at high-risk groups). At each level, the severity of the problem is matched with the intensity of the intervention (Eyberg et al., 2008; Sanders et al., 2014). For example, at one end of the spectrum, Level 1 universally targets the general population and may include widespread multimedia campaigns offering parenting tips. Moving toward the other end, Level 5 is designed for families facing complex issues who are seeking individualized parenting support such as parents going through a separation attending a specialized PMT group (Sanders, 2023). This multilevel approach aims to prevent and treat social, emotional, and behavioral difficulties in 1-16 year olds by building parental confidence and skills (Lieneman et al., 2018). For the purpose of this review, Level 4, or Standard Triple P, which is the parent management training program for child conduct problems in Triple P, will be discussed (Sanders & Morawska, 2010). Four types of parenting skills are targeted in Standard Triple P:

skills to enhance the parent-child relationship, skills to promote prosocial behaviors, skills that coach a child in new behavior, and skills to respond to problem behavior (Sanders, 2023). Relying on a social learning framework, self-regulation and developmental theory, Standard Triple P imparts 17 core parenting skills, including attention, setting limits, physical affection and planned ignoring (Eyberg et al., 2008; Kaur et al., 2022). Parents in Standard Triple P participate in 10-12 sessions, which can be self-directed or conducted individually or in groups. Triple P was initially developed for preschool children but has since expanded to include children and adolescents (Sanders, 2023).

Modular approach to therapy for children with Anxiety, Depression, Trauma, or Conduct problems (Chorpita & Weisz, 2009)

In the past two decades, modular treatment approaches have emerged as empirically supported alternatives to traditional, linear, single-disorder therapies for youth (Venturo-Conerly, Fitzpatrick & Weisz, 2023). One such model is MATCH-ADTC (Modular Approach to Therapy for Children with Anxiety, Depression, Trauma, or Conduct Problems, which distills well-established strategies (e.g., problem-solving skills, cognitive restructuring) from various evidence-based treatments, such as Cognitive Behavioural Therapy and PMT (Farrell, Murrihy, & Essau, 2023). The therapist can choose from 33 distinct modules to address the individual needs of children and adolescents presenting with a wide range of emotional and behavioral difficulties (Venturo-Conerly, Fitzpatrick & Weisz, 2023). The program is intentionally designed for the complexity of presenting presentations in real-world clinical settings, and emphasizes a collaborative approach in setting goals for treatment. Therapy typically involves the child, parent, or both, and the duration and sequencing of sessions are flexibly adjusted based on clinical judgment, therapeutic roadblocks, and the evolving needs of the case (Venturo-Conerly, Fitzpatrick & Weisz, 2023).

Defiant Children (Barkley, 1987)

Against this backdrop, we now turn to the PMT protocol chosen for this current study, Barkley's Defiant Children. The high level of comorbidity between ODD and ADHD, led Barkley to modify Hanf's PMT approach to accommodate ADHD when addressing defiant behaviors in youth aged 2 to 12 years (Kaehler et al., 2016). The goals of the Defiant Children (DC) program are to (a) improve parent skills in dealing with oppositionality; (b) understand the causes of defiant behavior and the principles of social learning theory; (c) improve child compliance with parental commands and rules; and (d) reduce parental stress by teaching better child management skills (Barkley, 2013). The program incorporates positive parenting and discipline techniques aligned with the Hanf model PMT programs and relies on the principles of social learning theory (Barkley, 2013). While Barkley recommended using the DC program in a group format, it is designed for both individual and group settings (Kaehler et al., 2016). The therapy typically does not involve the child, however, the manual states that if the child is present, the therapist can role model the technique with them (Barkley, 2013). For this purpose, in this study both child and parent were included in therapy. DC's manualized program consists of nine weekly sessions for parents. The age range for this treatment has been described as 2-12 years (Barkley, 2013).

Evidence Base for PMT

Parent Management Training has been extensively researched since its inception in the 1960s, and several comprehensive reviews have utilized the well-known 'Chambless criteria' and compiled summary lists of evidence-based programs for youth with challenging behaviors (Brestan & Eyberg, 1998; Chambless & Hollon, 1998; Eyberg et al., 2008; Kaminski & Claussen, 2017). In a seminal paper, Brestan and Eyberg (1998) reviewed 82 treatment studies published between 1966 and 1995 for children and adolescents with

disruptive behavior disorders. From this review, they identified a list of 11 well-established and probably efficacious treatments, many of which were parent-focused (often with child involvement) and based on behavioral principles including HNC, PCIT, and IY. While this review focused broadly on disruptive behavior disorders, predominantly the measures relied on a threshold of 'high levels of behavior problems', and only 28% of the studies included participants who met the DSM criteria for ODD or CD (Brestan & Eyberg, 1998).

Eyberg et al. (2008) continued in the same vein, conducting a large review of the subsequent decade - 1996 to 2007- and reached similar conclusions that parent training remained the "first line approach" for young children with disruptive behavior disorders (p.233). They emphasized the need for more independent replication of studies and active comparisons to other treatments that control for patient and therapist expectancy effects (Chambless & Hollon, 1998; Eyberg et al., 2008). They also noted that although the effectiveness of these treatments for youth with disruptive behavior is well-recognized, understanding the mechanisms of change still needs to be improved.

More recently, a review by Kaminski and Claussen (2017), covering the period from 2007 to 2016, marked a significant shift in focus, moving from 'brand name' treatment packages (e.g., IY, HNC) to treatment families (e.g., group-delivered parent behavior therapy), which enabled the identification of 'common factors' across various PMT approaches. They found that both individual and group parent behavior therapy, with or without child involvement, are well-established treatments (2017). Altogether, these reviews, extending over 50 years, show the dominance of PMT as an evidence-based treatment for youth with disruptive behavior disorders.

Narrowing the focus to Barkley's Defiant Children (DC; 1997), as the PMT treatment used in the current project, substantial empirical support exists for this commonly used PMT approach and its impact on youth with ODD (Hood, Elrod, & DeWine, 2015). In the DC

manual, Barkley outlines the procedures used in this parent training program, adapted from Hanf, which include improving selective attention, issuing effective commands, encouraging solitary play behavior, and utilizing response cost and time-outs, along with the research supporting their efficacy (1987). In sum, a substantial number of studies investigating Barkley's DC program have shown support for its effectiveness in reducing ODD, internalizing symptoms, parent-child conflict, school adjustment issues, and associated impairments in functioning (Barkley et al., 1992; Greene et al., 2004; Malik & Tariq, 2014; Malik et al., 2017; Ollendick et al., 2016).

Limitations of Parent Management Training

Attrition and treatment of disruptive behavior disorders

While PMT has garnered significant research interest and is well-established as a treatment for youth with disruptive behavior disorders, it has notable limitations regarding attrition, durability, and magnitude of change (Kazdin, 2005). First, engagement represents a considerable barrier that prevents many families from reaping optimal benefits from PMT (Nock & Ferriter, 2005). Nock et al. (2005) argue that engagement in therapy is a basic prerequisite for completing treatment and yielding successful outcomes, yet the literature is replete with PMT studies showing high attrition and less-than-optimal adherence (see Chacko et al., 2016 for review; Niec et al., 2016; Ollendick et al., 2016; Prinz & Miller, 1994; Scott et al., 2001; Scott, 2005). Chacko et al. (2016) conducted a systematic review of 181 studies of PMT and found that the average dropout rate for families across studies was 25% after enrolment and before treatment commenced, and 26% dropped out after treatment started. That said, it should be noted that there was a wide range of attrition across studies, with twenty-four studies showing more than 50% attrition and seven studies with no attrition whatsoever (Chacko et al., 2016).

With most studies reporting over a quarter of families dropping out of PMT treatment once started, and, therefore, missing out on potential benefits, questions must be raised about the factors contributing to the high dropout rate. Sociodemographic characteristics offer some insight regarding which subgroups are vulnerable to drop out, with studies showing that individuals who drop out of treatment often experience greater socioeconomic disadvantage (see Chacko et al., 2016, and Reyno & McGrath, 2006, for reviews; Fernandez & Eyberg, 2009; Kazdin, 1990; Lavigne et al., 2010; Leijten et al., 2013; Prinz & Miller, 1994). In their review of attrition studies, Chacko et al. (2016) conducted a moderator analysis and found that SES was the only variable examined that was significantly associated with attrition rates. They demonstrated that studies with predominantly lower-SES participants reported consistently higher attrition rates (34%) compared to those with higher-SES participants (24%). However, other studies have challenged this notion, finding no evidence that family income affects attrition (Dumas, Nissley-Tsiopinis, & Moreland, 2007; Ollendick et al., 2016, Werba et al., 2006). Further to this, there have been mixed findings regarding other variables potentially associated with attrition, including the child's age, severity of conduct problems, higher levels of maternal stress and depression, single-parent households, and greater family adversity (Kazdin, 1990; Lavigne et al., 2010; Prinz & Miller, 1994; see Reyno & McGrath 2006, for review; Werba et al., 2006).

In an attempt to systematically study the reasons for drop out, Prinz and colleagues (1994) compared 147 families with aggressive children who were randomly assigned to either standard family treatment, which comprised PMT, or an enhanced PMT treatment that included the addition of discussions of general life issues. They examined the dropout rates and reasons for attrition in both the PMT and enhanced PMT groups. Attrition was high in both active conditions, with 48% of the PMT group and 29% of the enhanced PMT group dropping out before completion of treatment. Families who dropped out across both

conditions reported significantly more logistical or situational obstacles related to their current life situation and dissatisfaction with the intervention and/or therapist, compared to those who completed the treatment. In particular, dissatisfaction with the intervention was higher in the standard PMT group (26%) compared to the enhanced PMT group (6%), which the authors suggested might have been related to the ability to discuss these barriers through frequent discussions in the enhanced PMT group (Prinz & Miller, 1994). Similar to Prinz and Miller (1994), other studies have incorporated techniques to improve engagement in PMT programs with some success (Nock & Kazdin, 2005; Prinz & Miller, 1994; Szapocznik et al., 1998) but, to date, these approaches have not been widely implemented or evaluated. Overall, the high proportion of families dropping out before completing treatment suggests that PMT may not be a good fit for a substantial number of families (Greene, Ablon, & Goring, 2003).

Durability of gains over time

In addition to the limitations with attrition, questions have been raised about whether the gains from PMT are maintained over time once treatment is complete. In a seminal review paper, Lundahl and colleagues (2006) delivered early findings that shed doubt on the long-term durability of PMT. They conducted a meta-analysis of parent training, initially including 63 studies, which narrowed to 21 at follow-up (Lundahl, Risser, & Lovejoy, 2006). The results revealed moderate effect sizes of PMT immediately post-intervention. Gains were generally sustained for up to one year (in all but two studies), however, over time, these gains diminished to a small effect size. This deterioration in gains raised concerns about the long-term sustainability of the intervention's benefits.

Similarly, in a global review of parenting research, the World Health Organisation found that reductions in child behavior problems and negative parenting, along with increases in positive parenting, were sustained for up to a year. However, the effects decreased from

moderate to small by the one-year follow-up (Backhaus et al., 2023). As with Lundahl et al. (2006), these findings are constrained by the limited number of RCTs available at follow-up (n = 23-34), representing a significant reduction from the original pool of 278 studies.

Another review by van Aar and colleagues (2017) examined RCTs over a more extended period of up to three years post-intervention and found that child problem behavior remained stable, with no significant change in effect size between post-treatment and follow-up. The variance in child behavioral outcomes amongst studies in this review tempered this conclusion (Van Aar et al., 2017). Indeed, some studies have found evidence supporting sustained changes and prevention of delinquency extending for as long as 12 years (Hood & Eyberg, 2003; Webster-Stratton, Rinaldi, & Reid, 2011). In sum, given the small number and heterogeneous nature of available follow-up studies, more research is needed to determine if PMT has lasting effects over time (Backhaus et al., 2023; Lundahl et al., 2006; Van Aar et al., 2017).

PMT and treatment remission

Although PMT has demonstrated statistically significant improvements in reducing problematic child behaviors and improving parenting practices (Kimonis et al., 2023), whether this leads to clinically meaningful changes in everyday social, familial, and educational functioning remains an issue of debate (Greene et al., 2004; Kazdin, 2005). Clinical significance is measured most frequently by examining whether individuals move from the clinical to the non-clinical or normative range following treatment (Kazdin, 2005). Studies have shown that despite statistically significant improvements in symptomatology, 30-51% of children and adolescents with ODD continue to exhibit symptoms that meet the threshold for a clinical diagnosis following treatment (Niec et al., 2016; Ollendick et al., 2016; Scott, 2005; Webster-Stratton, 1990). In a large RCT comparing two active treatments

for youth with ODD, Ollendick et al. (2016) found that only 49% of families were diagnosis-free immediately after PMT treatment, with this percentage dropping to 44% at follow-up. In other words, less than half of the sample fell into the normative range after treatment, underlining the substantial number of young people who continued to experience clinical problems even after completing PMT.

Changing philosophies in parenting

The final limitation that will be discussed with regard to PMT is an apparent shift in parenting that is currently underway. Coyne (2013) proposed that a key factor limiting the widespread dissemination of PMT is an emerging societal shift in the understanding of parenting and, specifically, what defines a good parent. He argues that research in attachment theory and interpersonal neuroscience, along with changes in general parenting literature, have contributed to a paradigm shift, with some families moving away from behaviorism toward attachment-based and developmentally informed intervention models (see Coyne, 2013 for discussion).

> At the core of this (paradigm) shift is a move towards the increased valuing of mental states, the interdependent nature of relationships, the strong basis and influence of developmental processes on neurological underpinnings of emergent capacities, and the need for therapeutic models to become sensitive to developmental processes and interdependent capacities (Coyne, 2013, p. 382).

Coyne (2013) argues that the evolving understanding of child behavior closely aligns with perceptions of treatment acceptability. He notes that some clinicians and parents view traditional behaviorist approaches as overly controlling, given their emphasis on influencing a child's behavior through external contingencies such as rewards and consequences. While this is his position, it is important to acknowledge that many contemporary PMT models have

expanded beyond this framework (Eyberg & Bussing., 2010). These programs often incorporate strategies aimed at fostering internal motivation, promoting emotional understanding, and strengthening the parent-child relationship. Techniques such as labeled praise, for example, not only reinforce specific behaviors but also support a child's developing self-concept and values. That said, Coyne (2013) maintains that behaviorism, in its more traditional forms, may fall short in incorporating developmental research and adequately supporting emotional attunement and secure attachment. In contrast, newer paradigms place less emphasis on behavior management and more on understanding the child's mental state and relational needs (Siegel, 2012).

Certainly, proponents of the PMT treatment model would disagree with this characterization. To illustrate, Sheila Eyberg in her PCIT model, followed the work of Hanf (i.e. SLT as a central theory), but also adopted attachment theory as foundational to the approach (Barth & Liggett-Creel, 2014; Kaehler et al., 2016). PCIT therapy consists of two discrete phases, the first of which, Child-Directed Interaction (CDI) recognizes that parents play a critical role in the maintenance of behavior problems and that warm and responsive parenting helps a child to develop a better working model of their relationships, and ultimately, better emotional regulation. Strengthening the parent-child relationship, therefore, is the goal of the CDI phase as it lays the foundation for the Parent-Directed Interaction (PDI) phase, which coaches consistent and structured discipline (Hershell et al., 2002). While both behaviorism and the new paradigm focus on the interaction between parent and child, only the latter places equal emphasis on the child's experience (Coyne, 2013). Coyne (2013) points to models such as the Circle of Security and Collaborative and Proactive Solutions to highlight how affect can be regulated in dyadic interactions. According to Siegel (2012), this regulation leads to neurobiological developmental outcomes with lasting effects (Andrews, 2019; Greene & Winkler, 2019).

Importantly, although Coyne's assertions were originally based on theoretical grounds, more recent empirical research supports the notion that some parents are seeking alternatives to PMT due to philosophical or value-based concerns. A recent Australian study by Canning et al. (2021) found that parents who chose not to use time-out (a core PMT strategy) viewed it as punitive and contrary to their value of emotional connection. These parents frequently preferred co-regulatory or attachment-based strategies, reflecting a broader desire for parenting approaches that prioritize relational quality and emotional attunement. Similarly, Jugovac et al. (2022) concluded that despite PMT's strong evidence base, there is a timely need to explore alternative parenting interventions that may better fit with families who favour relational and emotion-oriented models of parenting. Together, emerging empirical evidence and conceptual critiques reinforce the idea that philosophical fit is a relevant factor influencing treatment acceptability, and that resistance to aspects of behaviorism cannot be dismissed as fringe or anecdotal.

In summary, although PMT is considered "one of the major achievements of the mental health sciences," with evidence in support of PMT surpassing that of many other child treatments, it has faced criticism on several fronts (Dadds, 2012, p. 8; Kazdin, 2005). With up to a quarter of families disengaging from PMT treatment and half of those who do engage remaining clinically impaired post-treatment, there is room for improvement in treatment outcomes. Additionally, emerging shifts in societal views on parenting increasingly emphasize attachment and relationship-based approaches, leading some parents to seek treatments more aligned with these values (Coyne, 2013). Altogether, the limitations of PMT, combined with growing interest in evolving parenting philosophies, are prompting researchers to evaluate new treatments that better align with relationship-based parental philosophies, one such treatment being CPS.

Collaborative and Proactive Solutions: An Alternative Treatment Model

A PMT therapist in his early career, Ross Greene gradually became disillusioned with this approach to treating challenging behaviors and shifted direction to develop CPS. Emanating from his work at Harvard Medical School, Greene first described CPS, a psychosocial therapy for youth with externalizing disorders, in his book 'The Explosive Child' (1998). Since then, the CPS model has been widely utilized in various settings, including inpatient psychiatry units, special and mainstream schools, juvenile detention facilities, and outpatient therapy with families (Greene & Winkler, 2019). Although Greene describes CPS as falling under the broad umbrella of cognitive-behavioral therapy and stemming from social learning models - particularly Mischel's work on frustration tolerance and delay of gratification - its theoretical underpinnings differ significantly from existing parent training models (Mischel, Shoda, & Rodriguez, 1989). In essence, CPS is best conceived as a hybrid model, integrating diverse theories and research including developmental theory, neuroscience, and transactional theory (Greene, 2010; Greene & Winkler, 2019).

Transactional model of development

An integral part of the CPS model is drawn from transactional models, which focus on the 'fit' between the child's cognitive and emotional capabilities and the characteristics of their environment (Greene, 2023). This environment includes peers, fellow students, teachers, siblings, parents, coaches, and neighbors (Greene, 2010). When the child's characteristics are compatible (skills) with their environment (e.g., parental expectations), desirable behavior results (Greene, 2023). Conversely, challenging behavior arises when environmental expectations overwhelm the child's capabilities, leading to what is referred to as an 'incompatibility episode'. Simply put, challenging behaviors - whether they be screaming,

swearing, hitting, or crying - are seen in CPS as ways that children communicate that their skills are overwhelmed by the demands being placed on them. The focus CPS places on the 'fit' between the child and their environment (i.e. home, school, friends) is reflected in Greene's motto that "kids do well when they can." (Greene, 2008, p. 10). Compatibility is not absolute and varies across settings; for example, school may offer a more compatible environment than home, or vice versa. Even within the same setting, compatibility can differ depending on the type of demand faced and the time of day (Greene, 2010).

Research from neuropsychological sciences

Neuropsychological research has shown that children with deficits in cognitive and emotional skills - such as flexibility, frustration tolerance, emotional regulation, problem-solving, and social skills - are at greater risk of developing emotional and behavioral challenges (Greene & Winkler, 2019). Drawing upon these findings, Greene argues that these deficits, which he labels 'lagging skills', make a child more vulnerable to experiencing an incompatibility episode. While lagging skills do not guarantee an incompatibility episode will result, Greene argues they create a significant susceptibility to one (2023). Unlike PMT, where behaviors are central to therapy, CPS therapists focus instead on the specific expectations a child struggles to meet (e.g., doing their homework) that lead to challenging behaviors. These unmet expectations, termed 'unsolved problems', represent the primary focus in CPS sessions (Greene, 2023). Greene provides an example of a child who lacks the skills to complete homework. He maintains that if a parent insists that the homework is completed in a way that overwhelms the child's abilities, then homework completion becomes an unsolved problem that reliably predicts incompatibility episodes and, consequently, challenging behaviors (Greene, 2010).

CPS aims to "understand, address, and resolve" the factors contributing to child-environment incompatibility episodes (Greene, 2010, p. 5). First, this involves helping the parent understand the CPS model and how the fit between child and environmental characteristics leads to predictable incompatibility episodes. This early approach to treatment emphasizes to parents that challenging behavior is not due to a lack of motivation per se but instead occurs when environmental demands exceed a child's abilities (lagging skills). Second, CPS therapists introduce three strategies for dealing with unsolved problems and discuss their impact on incompatibility episodes. These strategies are referred to in CPS as Plan A, B, and C (Greene, 2010). Central to the CPS process is Plan B, a collaborative problem-solving approach aimed at finding mutually satisfying solutions to unsolved problems that address the concerns of both parent and child (Greene, 2010). Unlike PMT, which is directed primarily at parents, CPS strongly emphasizes the child's experience in the problem-solving process. In undertaking Plan B, the therapist coaches both parent and child to collaboratively resolve problems that precipitate challenging behavior, thereby reducing child-environment incompatibility episodes. Greene argues that when problems are solved collaboratively, with both the parent and child involved in identifying and listening to each other's concerns, generating solutions, and anticipating outcomes, the child benefits by developing the skills they are lacking (Greene, 2010). In terms of the other strategies, Plan A, which is not advocated in the CPS approach, involves unilateral problem solving (i.e., the imposition of adult will), while Plan C temporarily removes the unmet expectation until it can be addressed within Plan B. It is reiterated that only Plans B and C are used in the CPS intervention.

Evidence base for CPS

In their first randomized study on CPS, Greene et al. (2004) aimed to compare the model with the well-established PMT for treating youth with ODD. They randomly assigned

47 clinically referred families with a child aged 4-12 years to either a CPS (n = 28) or PMT (n = 19) treatment condition, using a 3:2 allocation ratio. These children met the criteria for ODD and had subclinical bipolar or major depressive disorder. The treatment was conducted at an outpatient clinic in a specialized department at a university hospital by experienced clinicians with doctoral degrees. In the PMT condition, families participated in 10 weekly, one-hour sessions, following Barkley's Defiant Children Manual (1987). Those in the CPS condition also followed a manualized therapy for an average of 11 sessions. Parents attended all sessions for both PMT and CPS, and children were brought into the session as directed by the manuals.

Results from this study showed that both active treatments effectively reduced ODD-symptoms and improved parental competence and the quality of parent-child interactions at post-intervention and the 4-month follow-up. Large effect sizes were observed for both treatments post-intervention (CPS 1.19; PMT 0.8), with the CPS effect size maintained at follow-up and reduced to a moderate size in the PMT group. Notably, no statistically significant differences were found between PMT and CPS groups on any of the abovementioned measures at post-treatment or follow-up. Focusing on clinically significant improvement, 46% of children in the CPS condition and 37% of those in the PMT group showed clinically significant improvement in ODD symptoms at post-intervention. At 4-month follow-up, the CPS group's improvement increased to 60%, while the PMT group remained stable. In short, Greene et al.'s (2004) preliminary study showed that both treatments were effective for youth with ODD, and there were no significant differences between CPS and PMT conditions.

Building on these promising results, a decade later, Ollendick and colleagues (2016) sought to replicate and extend upon Greene et al.'s work (2004). This study included a control group and a larger sample of slightly older youth diagnosed with ODD. This

landmark RCT compared the treatment outcomes of 134 children aged 7-14 years, randomized to a waitlist control, CPS, or PMT condition. In the PMT condition, treatment was once again based on Barkley's Defiant Children manual (1987). Before commencing the study, input from families from the community resulted in an extension of the program from 10 to 12 sessions, with a booster scheduled two weeks after treatment (CPS dosage was the same as PMT). Families in this study were assessed at pre- and post-intervention and at 6-month follow-up.

Results showed that, compared to waitlist control, both PMT and CPS achieved better outcomes across all four outcome measures: structured DSM interviews, parent-rated ODD and aggressive symptom reports, and clinician-rated global outcomes. Specifically, both active treatments resulted in lower ODD severity scores, lower global illness severity scores, and fewer parent-rated ODD symptoms at post-treatment compared to the waitlist control. In addition, both active treatments were effective, with large within-group effect sizes observed over time (CPS: $d = 1.13$; PMT: $d = 1.06$). Notably, there were no statistically significant differences between CPS and PMT groups, and treatments were statistically equivalent (Ollendick et al., 2016).

Results from a semi-structured interview examining DSM diagnoses revealed that, after treatment, nearly half of the young people in both active groups were free from an ODD diagnosis (CPS = 48%, PMT = 48.8%). Importantly, these gains continued from post-treatment to 6-month follow-up, although there was a slight reduction in gains, with CPS decreasing by 2% and PMT by 5%. No significant differences were seen in ODD diagnoses between the two active treatment groups at post-treatment or follow-up.

While these results are promising, it is important to note the constraints of this study (Ollendick et al., 2016). The waitlist condition was discontinued after one year because some participants had deteriorated. This ethical issue resulted in 11 participants being re-

randomized to the active treatment conditions. A further problem is attrition, with 21% of families dropping out before completing treatment. Sixteen percent of completer families did not complete the post-treatment questionnaires, and 46% did not attend the 6-month follow-up assessment. As a result, the authors had to overcome these gaps with rigorous methodological analyses.

Mulraney and colleagues (2022) sought to advance the understanding of irritability - a core factor underlying ODD - and whether it responds to CPS treatment. The authors argued that while current treatments for ODD, such as PMT, focus on the headstrong and defiant factor, no treatment has specifically targeted irritability. To address this gap, they conducted a pilot, proof-of-concept trial comparing twelve clinically referred youth aged 9-14 years randomized to CPS or Usual Care (UC; assessment or treatment in an outpatient community mental health center). The study's primary aim was to evaluate the feasibility and acceptability of CPS for youth with severe irritability by examining enrollment, dropout rates, and treatment attendance.

Results showed attendance was generally good and only one of the six families dropped out of treatment, the same as in the UC condition. Four families attended all six sessions, and the fifth family completed four sessions (which the therapist and client determined as an adequate dosage). Comparisons of attendance between the two groups could not be made, as the design did not aim to match dosage. The average number of treatment contacts was 1.7 for the UC group, compared to 6.7 for the CPS group. Enrollment attrition, when participants are identified as appropriate for treatment but they decline to enroll in treatment, was high at 52% in the CPS group, although there is some evidence to suggest that this is not unusual for families with youth exhibiting challenging behaviors (see Chacko et al., 2016). All parents reported that the CPS was useful and would recommend it to others. Regarding irritability, the sample size did not permit meaningful comparison between groups.

However, it was noted that the CPS group showed reductions in child irritability compared to the control group. Although there were mixed results in terms of feasibility, drop out from the intervention was low, and reported consumer satisfaction was acceptable in this pilot study.

In summary, early research into CPS for treating children and adolescents with ODD conducted in university outpatient clinics and community mental health centers is promising. This research indicates that CPS is effective in reducing ODD symptoms, with outcomes comparable to those of the well-established PMT. The next step in research dissemination for CPS is to replicate these outcomes and enhance external validity by extending efficacy research to evaluations of CPS in 'real-world' clinical settings (Eyberg et al., 2008; Michelson et al., 2013).

Building the CPS Research Base: Where to From Here?

The process of validating new psychological treatments for use in clinical practice settings requires the implementation of efficacy and effectiveness research (Ollendick, Muris, & Essau, 2017). Efficacy trials, such as those of Ollendick et al. (2016), are tightly controlled experimental studies typically conducted in university clinics (Hunsley, Elliott & Therrien, 2014). In these studies, research therapists - usually graduate interns - deliver manualized treatment to a homogenous client group randomized to treatment conditions (Hunsley et al., 2014). While these RCTs are a crucial first step in determining empirically validated treatments, they have been criticized for focusing on internal validity at the expense of external validity (Michelson et al., 2013; Ollendick et al., 2017). Whether the causal inferences generated from these tightly controlled efficacy studies generalize to treatment in real-life service settings, with clinically referred comorbid clients, is a question of debate (Michelson et al., 2013).

To address these concerns about efficacy studies and inadequate external validity, researchers have recommended undertaking effectiveness research to strengthen treatment conclusions (Ollendick et al., 2016). Effectiveness trials rely on widely-used criteria by Weisz et al. (1995), which ensure that clinically referred clients, practitioners employed by the clinic, and service-oriented settings are integrated into the research design. It is believed that the more effectiveness criteria are incorporated into a study, the more relevant the findings become to community mental health services (Michelsen et al., 2013).

Although maximizing internal and external validity using both efficacy and effectiveness trials may be ideal, the latter has proven difficult and costly to conduct (see Michelson et al., 2013 for discussion). Literature reviews have shown that the Weisz criteria for effectiveness trials are rarely fully met in studies (Michelson et al., 2013). This issue presents a particular stumbling block for reaching conclusions about a treatment's generalisability (Michelson et al., 2013; Weisz et al., 1995). As a result, many hybrid clinical trials have emerged that typically blend randomization with elements of effectiveness designs, including treatment delivery in a community-based setting (Kanter et al., 2016; Rohde et al., 2004; Sloan, Unger, & Beck, 2016). Furthermore, when establishing a novel treatment like CPS, it is essential to include social validity measures in research designs (Wolf, 1978). Social validity encompasses the social significance of the treatment, specifically involving consumer input on the acceptability of CPS treatment (Kazdin, 2000).

Is CPS an acceptable treatment?

Wolf (1978), in a seminal paper on social validity in research, states that “whether or not the program is helpful can be evaluated only by the consumer” (p. 210). He elaborates that using client-reported data allows researchers to capture the social validity of a treatment approach, encompassing customer satisfaction with the clinical impact of treatment effects,

the acceptability of treatment procedures, the treatment's social significance, and potential side effects (Auby, 2016; Kazdin, 1977; Wolf, 1978).

Of these components of social validity, the client's evaluation of treatment acceptability has received the most attention in the literature (Arkan et al., 2020; Fefer, Donnelly, & Santana, 2022; Wolf, 1978). Kazdin (2000), a pioneer in this field, defined treatment acceptability as the overall evaluation of treatment procedures by clients, including whether treatment is fair, reasonable, appropriate, non-intrusive, and represents notions of what clients expect from treatment. While treatments can be effective, their acceptability to consumers may "vary considerably" (Kazdin, 1980a, p. 260). An example is the controversy surrounding the use of time-out. Although extensively researched, validated, and shown to be safe, there is still resistance to time-out from some families who fear a break in attachment security (Canning, Jugovav, & Pasalich, 2023; Dadds & Tully, 2019; Woodfield, Brodd, & Hetrick, 2021). A further example is that, when given the option of medication or psychotherapy, patients prefer the latter, even though both therapies are generally effective (Banken & Wilson, 1992; Krain, Kendall, & Power, 2005; see meta-analytic review: McHugh et al., 2013; Tarnowski et al., 1992). In addition to impacting treatment selection, acceptability is important because it is related to greater adherence to treatment and reduced dropout rates an issue of particular importance in the field of disruptive behavior disorders (Bados, Balaguer, & Saldana, 2007; Kazdin et al., 1997a; Nock & Ferriter, 2005; Reimers et al., 1992; see review: Santa & Fontenelle, 2011; Sekhon, Cartwright, & Francis et al., 2017).

Many factors are believed to shape parental perception of treatment acceptability. Studies across various psychological conditions suggest that a parent's view of treatment acceptability is affected by treatment content, format, and quality of care (Sekhon et al., 2017). Kazdin and colleagues, in their early work with disruptive behavior disorders, suggested that treatment acceptability is determined by broad characteristics such as the

severity of the child's problem, proximal barriers like the perceived relevance of treatment[3], and the effectiveness of the treatment (1997; Kazdin, 2000). Surprisingly, while one might expect a strong association between the effectiveness of a treatment and greater treatment acceptability, this is not always the case. The relationship between treatment effectiveness and acceptability is weak, accounting for a shared variance of only 9-12% (Kazdin, 2000). Thus, parental perceptions of treatment acceptability were not strongly related to behavior change in their child (Kazdin, 2000).

Despite Kazdin's original assumptions, his later research found that perceived proximal barriers, rather than broad characteristics and treatment effectiveness, had the greatest impact on whether a family decides that treatment is acceptable (2000). Drawing on Kazdin et al.'s barriers to treatment participation model (BTPM), the greater the number of barriers to treatment that parents experience, the less likely they are to consider the treatment method acceptable (Kazdin & Wassell, 1997). Research findings support this model, showing that if families perceive that treatment is too demanding, lacking relevance, or that the parent relationship with the therapist is less than optimal, this influences the acceptability of the treatment (Canning et al., 2023; Kazdin et al., 1997a, 1997b).

Kazdin's foundational work aside, the research on treatment acceptability has lacked rigor and coherence, and it is only in the past five years that researchers have proposed a comprehensive framework for treatment acceptability to aid in conceptual understanding and standardized measurement (Sekhon et al., 2017, Sekhon, Cartwright, & Francis, 2022). Drawing on a meta-review, Sekhon and colleagues developed a framework that proposed seven characteristics of interventions that improve treatment acceptability (2017).

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[3] Perceived relevance reflects the extent to which treatment was seen as relevant to the child's problems and met parent expectations (Kazdin, 2000).

Acceptability measures can be assessed prospectively or, as in this case, retrospectively. These characteristics include (a) how the participant feels about the intervention, (b) user perception and satisfaction, (c) how well the client understands the intervention and how it works, (d) the extent to which benefits or values must be given up to engage in the intervention, (e) the extent to which the intervention is a good fit for the person, (f) the individual's confidence that they can perform the required behavior, and (g) the amount of effort and time required (Sekhon et al., 2017; 2018). Researchers can utilize this framework to guide their selection of measurements and improve the consistency of research methodologies.

Additionally, it is important to consider that while psychological therapies, in general, have shown good treatment acceptability (Milosevic et al., 2015; Rabbitt, Kazdin, & Hong, 2014; Tarnowski et al., 1992), there can be differences in acceptability among psychotherapies (Zhou et al., 2015). While no such comparison research exists for disruptive behavior disorders, Zhou and colleagues (2015), in a systematic review of 53 studies comparing treatments for youth depression, found that interpersonal therapy and problem-solving therapy were viewed as more acceptable than cognitive behavior therapy. This finding suggests that a difference in treatment acceptability may be observed between two psychotherapies.

From a practical perspective, if differences between treatments exist, this could be a crucial criterion for guiding selection among various treatment options. Although PMT and CPS have demonstrated equivalent effectiveness (Greene et al., 2004; Ollendick et al., 2016), acceptability to families may differ. These treatments are grounded in distinct theoretical approaches that may have differential appeal to parents. It may be that one approach is deemed more demanding than the other, or that families perceive the therapeutic style required to deliver the treatment in distinct ways. As discussed earlier, deeply held values,

beliefs, and philosophies about parenting, which are dynamic, can often influence the acceptability of treatment (Canning et al., 2023; Sekhon et al., 2017). The shift in parenting philosophies towards attachment theory may impact parental willingness to engage and adhere to PMT (Coyne, 2013). Moreover, parents who have an authoritarian parenting style and believe in the use of punishment in response to noncompliance may struggle with a model like CPS that emphasizes equality in the parent and child relationship.

So far, the research on treatment acceptability in PMT has employed a variety of measures with differing quality. Nonetheless, these studies have demonstrated that PMT, and its derivatives, are generally seen as acceptable by parents (Abrahamse et al., 2018; Arkan et al., 2020; Comer et al., 2017; Diaz-Stransky et al., 2020; Fefer et al., 2022; Fleming et al., 2022; Johnston, Hommersen, & Seipp, 2008; Kohlhoff et al., 2020; McMahon & Forehand., 1983; Niec et al., 2016; Sanders et al., 2014). Further, studies have broken down and compared the strategies used in PMT and found that positive reinforcement strategies aimed at increasing desirable behaviors are more acceptable than disciplinary strategies aimed at decreasing negative behaviors (Jones et al., 1998; Kazdin, 1981). No studies have yet evaluated the acceptability of CPS treatment.

In summary, for CPS to be established as an alternative treatment option for youth with ODD, more research is needed. First, research to replicate findings from earlier RCTs must be undertaken; however, this time, they must include effectiveness features (i.e., service-oriented settings, clinically referred clients, practitioners employed by the clinic) in their design to increase the generalizability of findings to real-world clinics. Consumer feedback regarding the acceptability of CPS therapy should also be sought to ascertain the social validity of CPS and potentially guide treatment selection.

Conclusion

In laying the foundational basis of this thesis, I have outlined how the long-held view of ODD as benign or a mild variant of CD has been discredited, and the subsequent research that has separated ODD from CD in youth has led to a more comprehensive understanding of ODD. I have highlighted the current view of ODD as that of a distinct entity and severe disorder characterized not only by defiant behaviors but also emotional symptoms (including irritability) that are associated with lifelong adverse emotional and behavioral outcomes. I have further underlined that as one of the most common childhood disorders, ODD represents a costly burden on society as a whole, underscoring the urgent need for early intervention with evidence-based treatment.

Focusing on the existing treatments for ODD, I have identified PMT as the most widely used treatment for youth and outlined the extensive research support for this approach. Further to this, I have presented the shortcomings of PMT, emphasizing that up to 51% of youth with ODD retain a clinical diagnosis of ODD after treatment. I have also highlighted the societal forces of change that have seen shifts in views on parenting, prompting movement towards relationship-based approaches and away from behavioral parenting approaches. I have underlined how these limitations to PMT and changes in beliefs towards parenting emphasize the need to improve both the effectiveness of evidence-based treatments and choice in philosophically aligned treatments.

In closing this chapter, I introduced an alternative therapy, CPS, for the treatment of youth with ODD. I reviewed the model's theoretical basis and provided a road map of the research required to establish CPS as an alternative treatment option for families. I summarized that the next step in the potential validation of this novel treatment for ODD is to replicate findings from earlier efficacy studies and highlighted the need to include both real-world effectiveness features (e.g., service-oriented settings, therapists, and clinically referred

clients) and social validity measures (e.g., treatment acceptability) in the research design (Greene et al., 2004; Ollendick et al., 2016). Finally, I underlined the importance of assessing the social validity of a new treatment to ensure that the philosophy underlying the treatment, its content, and its processes are acceptable to families. Thus, the overarching aim of this thesis was to investigate the effectiveness and acceptability of an alternative treatment, CPS, as an alternative treatment option for youth with ODD.

CHAPTER 2: Phase 1 Research Methodology

Study Aims and Hypotheses

Oppositional Defiant Disorder remains a significant challenge in youth mental health, with up to 51% of children retaining their diagnosis even after completing PMT, the most widely used treatment (Niec et al., 2016; Ollendick et al., 2016; Scott, 2005; Webster-Stratton, 1990). This highlights the urgent need to explore alternative interventions that are effective for PMT non-responders and resonate with families who prefer approaches grounded in relationship-based philosophies rather than behaviourism (Canning et al., 2023). This thesis aims to replicate the findings of Ollendick et al. (2016), focusing on the effectiveness and acceptability of CPS, with an emphasis on incorporating a real-world setting to ensure practical relevance and impact. To this end, it presents findings from a randomized comparison trial (RcT) investigating CPS and comparing it to the well-established treatment, PMT, for the treatment of 160 youth aged 7-14 years with ODD in a community setting in Sydney, Australia. Treatment outcomes for Phase 1 of this study are presented in this chapter, and these were published recently in Behavior Therapy in 2023 (see Appendix A; Murrihy et al., 2023).

Building on efficacy research, the study included in Phase 1 was the first to adopt a hybrid design incorporating effectiveness features and delivery outside the U.S. to strengthen the generalizability of conclusions reached about CPS. This study will address the current gap in the literature with regard to effectiveness research for CPS, which is crucial to establishing an evidence base, improving clinical outcomes, and providing treatment choices that are acceptable and philosophically aligned with parent preference.

Our first hypothesis (see Table 2 for Hypotheses) was that CPS would be as effective as PMT in reducing symptomatology and improving global functioning in youth with ODD when delivered in a real-world setting outside the U.S. Building upon previous efficacy

studies (Greene et al., 2004; Ollendick et al., 2016), this was the first study, to our knowledge, that sought to replicate these findings using a hybrid design with effectiveness features to enhance the external validity and generalizability of CPS research. Related to the generalizability of results from efficacy trials to routine clinics, this study further pursued an exploratory inquiry (1; see Table 2) that examined if treatment outcomes would differ based on features related to efficacy and effectiveness design (Michelson et al., 2013). This was also the first study to consider the transportability of CPS outside of the U.S. (Hypothesis 1).

It is crucial when validating a new treatment that the evaluation examines whether post-intervention gains are maintained over time (Eyberg et al., 2008). Our second hypothesis predicted that youth in the CPS condition would maintain improvements in ODD comparable to those in PMT for up to 6 months post-treatment, as PMT typically demonstrates similar patterns of sustained outcomes (Van Aar et al., 2017). Lastly, drop out from treatment is another critical barrier to the successful uptake of treatments for ODD. Our third and final hypothesis relates to this, proposing that both the CPS and PMT groups will experience moderately high attrition, similar to the rates previously observed (Ollendick et al., 2016), with comparable outcomes between the two.

Table 2.

Overview of Hypotheses and Exploratory Inquiries

Phase 1:	
Hypothesis 1	We expect CPS to be as effective as PMT in reducing symptoms, enhancing global functioning, and achieving diagnostic recovery in youth with ODD when implemented in a real-world setting outside the U.S.
Hypothesis 2	We expect youth in the CPS condition will maintain improvements in ODD symptoms at levels comparable to PMT between post-intervention and 6-month follow-up.
Hypothesis 3	We expect attrition will be high, and comparable, in both PMT and CPS groups.
Exploratory Inquiry 1	We explore if expected treatment outcomes differ based on features related to efficacy and effectiveness design.
Phase 2:	
Exploratory Inquiry 2	We explore if families utilizing CPS perceive the treatment as highly acceptable, comparable to PMT.

Note. PMT = Parent Management Training; CPS = Collaborative and Proactive Solutions; ODD = Oppositional Defiant Disorder.

Method

Participants

Parents of 7-14 year old youth with behavior difficulties were enrolled over a 5-year period, via clinical and community referral. The Center is a community clinic that provides individual and group psychological treatment to 5- 25 year olds and is located in North Sydney, Australia. Young people requiring psychological treatment for internalizing and externalizing disorders are typically self-referred or referred by medical practitioners and school counselors. In this study, clinical referrals constituted 55% of the sample, coming from health practitioners and school personnel. The remaining families self-referred in response to media advertisements. An initial 20-minute phone screen assessed whether the youth met the clinical cut-off on the ODD subscale of the Disruptive Behavior Disorder Rating Scale (DBDRS, Pelham et al., 1992) and provided information regarding the study's procedures. In this initial screen, 232 parents endorsed eligibility criteria. Of those, 192 families attended the Center to complete a comprehensive pre-treatment assessment. Study eligibility was determined based on the presence of ODD, which was assessed via parent and youth questionnaires and a structured diagnostic interview (Anxiety Disorders Interview Schedule for DSM-IV, ADIS-IV-C/P, Silverman & Albano, 1996). If deemed eligible to participate in the study, written consent was obtained according to the UTS Ethics Committee (HREC 2014000159).

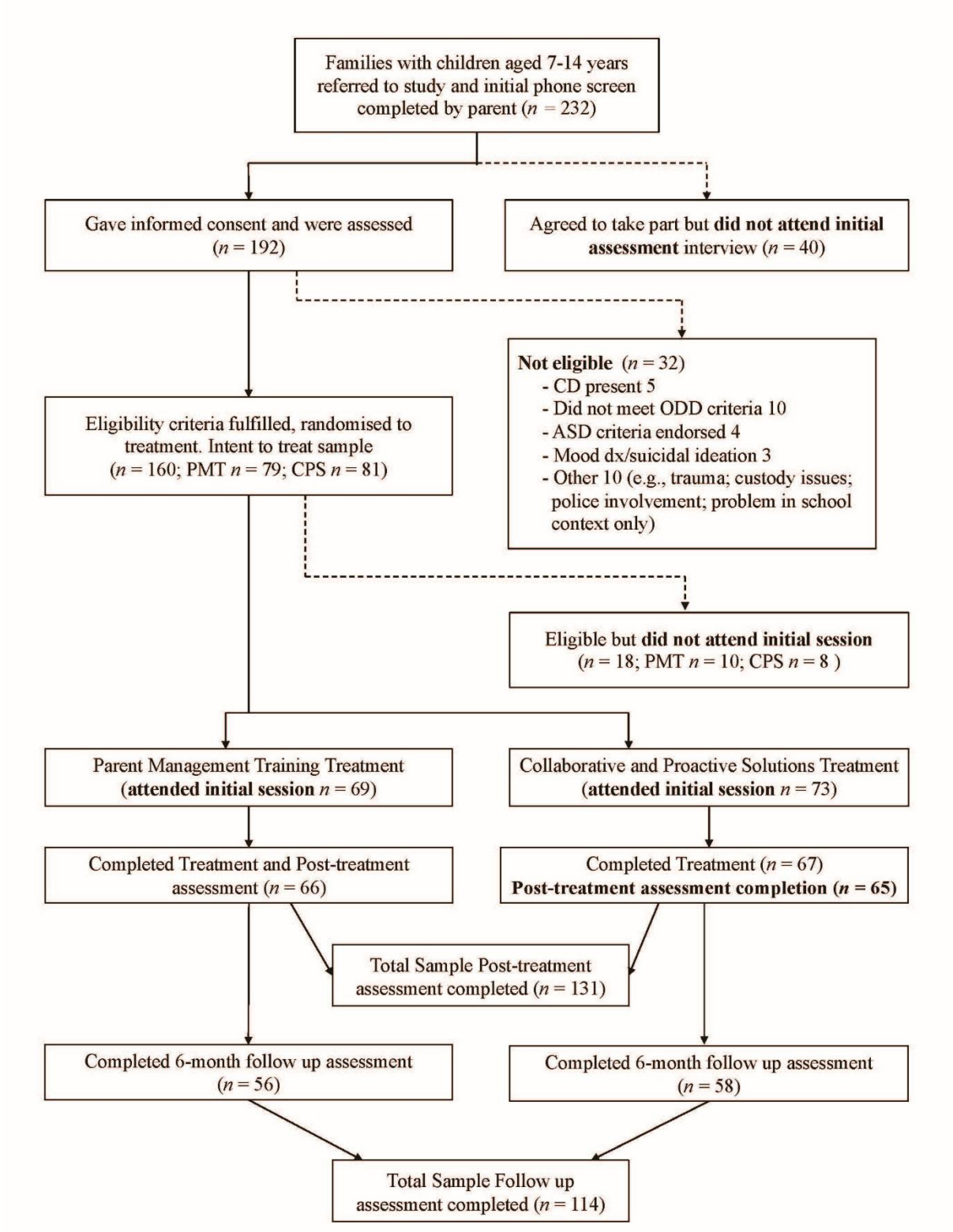
Figure 1 provides a summary flow chart of participants through the study. To meet the criteria for ODD, the DSM states that “criteria are not met for CD”. Thus, potential participants were excluded if they were not fluent in English or they met the full diagnostic criteria for CD and autism spectrum disorder (ASD), developmental delay, substance abuse, or high risk of suicide (note that Attention Deficit Hyperactivity Disorder [ADHD] was not excluded). The taking of psychotropic medications, prescribed either before or during the

study, was permitted, and participants were encouraged to maintain a consistent regime during the trial.

A power analysis, conducted using the simr R package (Green et al., 2016) with a medium effect size based on a previous clinical trial (d = .50), and an alpha of .05, showed that a total sample of 128 participants with two equal-sized groups of n = 64 was required to achieve a power of .80. Assuming a 20% drop-out rate, we recruited 80 participants per group.

Figure 1.

Flow Chart of Participants Through the Study



See Table 3 for sociodemographic characteristics. Study participants were assessed at pre-treatment as having 'markedly disturbed' levels of behavior problems, according to the ADIS-IV-C/P structured interview (Silverman & Albano, 1996). The mean clinician severity rating (CSR) scores were 6.76 (*SD* = .92) on a scale of 0-8. A primary diagnosis of ODD was present for 81% of the participants and was the primary reason for referral for all participants; 13% had ODD as a secondary diagnosis and 6% as a tertiary diagnosis. Of those who did not present with ODD as the primary diagnosis, 49% had ADHD. Almost the entire sample (96%) had at least one comorbid disorder (see Table 4).

Procedure

Assessments were conducted with families at pre-, post-treatment, and 6-month follow-up. Prior to the face-to-face assessment interview, the parent(s) and child completed questionnaires using Qualtrics software (Version 3, 2016). Independent assessors then conducted structured interviews at the clinic (1-2 hours) with separate assessors assessing the parent(s) and child (ADIS-IV-C/P; Silverman & Albano, 1996). After completing the assessment, families received a gift voucher of AUD 100 (approximately USD 64) to compensate for their time and travel. Assessments began in May 2014 and extended through May 2019. Assessors were current Master of Clinical Psychology interns or experienced clinical psychologists practicing at the Center, who completed a 1.5-day training. Diagnostic status and severity rating for two interviews were required after the training, and inter-rater reliability had to reach .90. Assessors were masked to treatment conditions at all three time points. They were also masked to diagnoses and scores at pre-treatment and follow-up, but not to diagnoses at post-treatment because of the necessity of checking the youth's progress on disorders identified at pre-treatment. Therapists and supervisors did not assess cases in

which they were involved as treating or supervising clinicians and were thus masked to this process.

Table 3.

Sociodemographic Variables and Chi-Square Results for PMT and CPS groups at Baseline (categorical variables)

Demographic	Total (N = 160)	PMT (N = 79)	CPS (N = 81)	χ^2	p
	N (%)	N (%)	N (%)		
Gender				1.28	.26
Male	115 (72)	60 (76)	55 (68)		
Female	45 (28)	19 (24)	26 (32)		
Age				1.62	.20
7-9	103 (64)	47 (59)	56 (69)		
10-14	57 (36)	32 (41)	25 (31)		
Ethnicity (mother only)				13.15	.59
Australian	91 (59)	48 (64)	43 (55)		
Asian	10 (6)	3 (4)	7 (9)		
African	7 (5)	4 (5)	3 (4)		
Central/South American	5 (3)	4 (5)	1 (1)		
European (Western, Northern, Southern)	29 (19)	13 (18)	16 (21)		
European (Eastern)	7 (5)	1 (1)	6 (8)		
North America	1 (1)	0 (0)	1 (1)		
NZ/Maori/Pacific Island.	3 (2)	2 (3)	1 (1)		
Family Structure				5.32	.50
Single Parent	20 (13)	13 (17)	7 (9)		
Two Parents	122 (77)	57 (73)	65 (81)		
Other	16 (10)	8 (10)	8 (10)		
Type of School				1.02	.60
Public	57 (35)	28 (35)	29 (36)		
Private	74 (46)	34 (43)	40 (49)		
Catholic	28 (18)	16 (20)	12 (15)		
Mother Education				7.54	.11
University	117 (73)	57 (73)	60 (74)		
High School	19 (12)	14 (18)	5 (6)		
Specialist training	17 (10)	5 (6)	12 (15)		
Less Yr10	3 (2)	1 (1)	2 (3)		
Father Education				6.21	.18
University	109 (68)	55 (70)	54 (67)		
High School	19 (12)	12 (15)	7 (9)		
Specialist training	20 (13)	6 (8)	14 (17)		
Less Yr10	7 (4)	4 (5)	3 (4)		

Income				.005	.99
Up to $79,999	18 (11)	9 (11)	9 (11)		
$80,000-$149,000	44 (28)	22 (28)	22 (27)		
$150,000 +	87 (54)	44 (56)	43 (53)		

Note. PMT = Parent Management Training; CPS = Collaborative & Proactive Solutions; missing data: ethnicity for mothers PMT (n = 4), CPS (n = 3); type of school for PMT (n = 1); mother education for PMT (n = 2), CPS (n = 2); father education for PMT (n = 2), CPS (n = 3); income for PMT (n = 4), CPS (n = 7).

Table 4.

Number and Percentage of Total Sample Presenting with Comorbid Disorders in Addition to a Diagnosis of Oppositional Defiant Disorder

Diagnosis	*N*	%
Attention Deficit Hyperactivity Disorder	108	68
Separation Anxiety Disorder	42	26
Social Phobia	59	37
Generalized Anxiety Disorder	57	36
Specific Phobia	67	42
Panic Phobia	3	2
Obsessive Compulsive Disorder	8	5
Post-Traumatic Stress Disorder	4	3
Depression	8	5
Dysthymia	21	13
Bullying	62	39
Other Disorders	31	19
No Comorbid Disorder	7	4

Note. Other Disorders includes: Sleep Terror Disorder (n = 4); Selective mutism (n = 1); Enuresis (n = 8); Other Unspecified (n = 18).

Once determined eligible, families were randomly assigned, using a block randomization procedure (to ensure similar group size), to either PMT *(n* = 79) or CPS (*n* = 81). After the initial assessment, 11% of participants withdrew before commencing treatment, predominantly citing logistical reasons (e.g., timetable clashes or work schedules). Therapists were randomized to treatment conditions. Experienced clinical psychologists from the Center delivered treatment for 50% of families, and intern clinical psychologists saw the remaining 50% as part of their supervised placement program [4].

Interventions

The parent(s) and child/adolescent attended 1-hour weekly treatment sessions for up to 15 weeks, followed by a booster session two weeks later. For the 6-months following treatment, participants could access monthly phone support if so desired. Therapist training consisted of a one-day workshop, watching 40 hours of therapy, and weekly clinical supervision.

Parent Management Training.

The PMT condition used a manualized program, Defiant Children (2nd ed., Barkley, 1997), with minor modifications by Ollendick et al. (2016). Both parent and child participated in the sessions. Barkley's program comprised a number of core components including (a) education regarding multifactorial causes of problem behaviors; (b) developing 'positive attending' skills; (c) utilizing differential attending to increase compliance; (d)

4 Intern clinical psychologists in this study were in the first year of their graduate clinical program (most were on their first or second placement and had seen relatively few clients). Experienced clinical psychologists had 6+ years of experience delivering psychological treatment. A significant difference existed between the two groups regarding years of experience as a psychologist.

giving effective commands, (e) implementing home reward systems; (f) instruction in 'time-out' and response cost; and (g) use of a contingency system. In total, 14 therapists delivered treatment in the PMT condition, of which one was male. Of this group, just under two-thirds were clinical psychologist interns (65%), and one-third were experienced clinical psychologists (35%). No adverse events were reported from either treatment condition.

Collaborative and Proactive Solutions.

CPS treatment focuses on helping parents identify their child's lagging skills and reframe their perception of their child's behavior using this conceptualization (Greene & Winkler, 2019). From there, the parent(s) and child/adolescent identify current 'unsolved problems' and are coached in steps to solve the problems collaboratively and proactively. Both parent and child participated in therapy. CPS entails four treatment modules (a) *psychoeducation and identification of unsolved problems,* which explains the conceptualization of CPS and identifies the unsolved problems precipitating challenging behavior; (b) *prioritizing unsolved problems* based on their relationship to safety, gravity, or frequency; (c) *learning about Plan A, B, and C* and the concept that parents have a choice of how to respond to an unsolved problem; and (d) *clinician modeling and coaching the use of Plan B* to help parents and children solve problems together proactively. Plan C involves setting aside a problem in the immediate context. It is not acquiescing as such, but rather it involves setting an expectation aside for now as other unsolved problems are prioritized. Both Plan A and Plan B represent attempts to problem solve. Plan A is an uninformed, unilateral problem-solving approach that involves the imposition of adult will ("I've decided that…"). Although Plan A may be used in some circumstances, it is considered counterproductive if used regularly in the context of lagging skills. In contrast, the fourth treatment module involves both the parent(s) and child/adolescent proactively working through a Plan B

together to solve problems collaboratively (e.g., empathy step; define the adult concerns; invitation step). A case study illustrating the use of PMT and CPS can be found in Table 5. In total, nine female therapists delivered treatment in the CPS condition. Of the clinicians, 64% were experienced clinical psychologists and 36% were clinical psychology interns.

Table 5.

Demonstrating the Use of Collaborative and Proactive Solutions (CPS) and Parent Management Training (PMT): A Case Study of Addressing a Child's Difficulty Getting Dressed on Time for School

Approach	Description
Collaborative and Proactive Solutions (CPS)	The CPS process begins with the therapist helping the parent(s) identify the unsolved problem wherein the child struggles to meet expectations. In this instance, it is difficulty getting dressed by 8am for school. Once the unsolved problem is identified and prioritized, the therapist coaches both parent(s) and child as they proactively engage in the problem-solving steps of a Plan B. During a Plan B, the parent gathers information from the child to better understand their perspective about why they are having trouble getting dressed by 8am. After the adult has expressed an understanding of the child's concerns, they articulate their concerns regarding school lateness. In the final step, parent(s) and child collaborate to arrive at mutually agreed upon solutions to facilitate resolving each party's concerns. By engaging in the Plan B process, lagging skills, such as executive functioning, are hypothesized to develop over time.
Parent Management Training (PMT)	In PMT, by contrast, the parent would modify the antecedents and consequences of the behavior to increase compliance. This might include ensuring their child's uniform is prepared and accessible, having enough time to get ready, and having a predictable routine. Behavior is shaped through positive reinforcement as the parent praises and attends to the desired behavior and/or implements a token economy.

Measures: Treatment response outcome and remission

Treatment fidelity. Adherence to the allocated therapeutic model was assessed by having an independent masked rater, experienced in both therapies, code random audiotaped therapy sessions using the Session Content Analysis checklist (Ollendick et al., 2016). The Session Content Analysis described six therapy techniques, three items prescribed by the therapy, and three items proscribed by that therapy. Ratings obtained for the prescriptive items should be high for the designated therapy (CPS or PMT) and low across the proscriptive items. For example, Item B is "Therapist discussed the specific child characteristics that appear to be underlying the child's problematic behavior". This item should receive a high score on a 5-point Likert scale for CPS therapists and a low score for PMT therapists. By contrast, PMT therapists should score high (and CPS therapists, low) on Item D "The therapist discussed ways in which parents could reward good behavior and consequate inappropriate behavior".

The Anxiety Disorders Interview Schedule for DSM-IV, child and parent versions. The ADIS-IV-C/P (Silverman & Albano, 1996) are parallel semi-structured interviews used to assess the presence of psychological disorders, symptom severity, and interference in youth. Clinicians interview the parent(s), the youth, and then combine data to determine whether criteria are met for diagnosis (and an associated clinical severity rating score or CSR). The diagnostic cut-off, used as a measure of remission, is met at a CSR of <4 on a scale of 0-8. An ODD interview is only included in the parent version, though it is noted that youth observation contributes significantly to the combined CSR score. Although, historically, the ADIS-IV-C/P has been used for anxiety disorders, research also shows good reliability and validity for externalizing disorders (Anderson & Ollendick, 2012; Ollendick et al., 2016).

The reliability of the structured interview diagnoses was evaluated by having an independent rater listen to a random selection of 20% of the recorded interviews, with $\kappa = .65$ for both the primary and secondary ODD diagnoses, indicating an acceptable level of agreement between raters (Cohen, 1960). In addition, Anderson and Ollendick (2012) demonstrated that the ADIS-C/P ODD component had convergent and concurrent validity with gold standard instruments.

Disruptive Behavior Disorders Rating Scale. The DBDRS (Pelham et al., 1992) is a 41-item parent and child questionnaire developed to measure symptoms that reflect DSM-IV criteria for ODD, CD, and ADHD. This study used a version of the DBDRS, revised by Barkley, to assess the child/adolescents behavior (Barkley, 1997). Parents scored each item on a 4-point scale ranging from 0 (never or rarely) to 3 (very often). Following Barkley's guidelines, each item reaching the threshold score of two or higher is considered an endorsed symptom of ODD, and recoded with a score of one. The DBDRS is scored so that participants either have a score suggestive of a diagnosis of ODD (four or more of the eight ODD items are endorsed), or do not meet criteria (scores of 0-3). The DBDRS has good reliability (in this study, internal consistency $\alpha = .82$; in Ollendick et al., 2016, $\alpha = .90$) and concurrent validity (Harada et al., 2004).

The Clinical Global Impression Scale. The CGI (Guy, 1976) comprises two observer-rated global subscales: the CGI-Improvement scale, a measure of treatment response that assesses global improvement by asking: "how much has he changed?" (1: very much improved to 7: very much worse); and the CGI-Severity scale, a global impression of the severity of illness which asks: "how impaired is she at this time?" (1: normal to 7: most severely ill). The CGI has been widely used to research internalizing disorders and ODD (Ollendick et al., 2016; Zaider et al., 2003). It has demonstrated good concurrent validity and

sensitivity in detecting treatment responders from non-responders (Ollendick et al., 2016; Zaider et al., 2003).

Results

Statistical analyses

Baseline differences between the active treatment conditions were compared on key demographic variables and treatment outcomes using chi-square and *t*-test statistics. These baseline characteristics were analyzed using IBM SPSS Statistics for Windows (Version 26.0). All participants randomized to a treatment condition were included in an intent-to-treat analysis (ITT, $N = 160$), regardless of program attendance. Data was missing because participants did not attend assessments or randomly missed completing questionnaire items. Where possible missing data was imputed in SPSS, using multiple imputation, the gold standard approach for dealing with missing data (Manly & Wells, 2015). Thirty imputed datasets were generated for analysis with the number of imputations to account for the maximum percentage of incomplete cases (Manly & Wells, 2015). Expectation maximization was used for missing data where analyses were undertaken that could not accommodate a multiple imputation approach (i.e., ANCOVA analyses in SPSS and HLGM undertaken with HLM software). The statistical significance level set for all analyses was $p < .05$ (two-tailed).

Given the nested structure of the data, and the use of an ITT sample, Hierarchical Linear Growth Modelling (HLGM, Version 8) was employed to examine treatment effects (Raudenbush, 2019). This approach enables the analysis of change over time while appropriately accounting for repeated measures nested within individuals or groups. Akaike Information Criterion (AIC) was used to compare alternative models; better fit was indicated by lower values (Vrieze, 2012). We estimated two sequential models. The unconditional model was initially undertaken, which examined symptom severity change across time, with

separate analyses undertaken for the DBDRS and the ADIS CSR. The unconditional model for each outcome measure was then compared to a predictor model, which included the addition of the intervention (CPS vs. PMT) and the covariates of sex and age to determine whether the full predictor model better fit the data. Three-way interactions were also examined for time, treatment group, and age, as well as for time, treatment group, and sex. Although a quadratic model was tested, this was not found to be a better fit than the linear growth model and so will not be discussed further. The CGI-S was obtained at two time points (pre-treatment and post-treatment), and the CGI-I at post-treatment only. Thus, ANCOVA and chi-square statistics were used to analyze within and between-group differences for these measures with the pre-treatment score added into the model as a covariate to adjust for the nested nature of the data.

In addition to traditional null hypothesis significance testing, equivalence testing was conducted to enable conclusions about group comparability (Rogers, Howard, & Vessey, 1993). A two one-sided t-test (TOST) examined whether differences between treatments were too small to be considered practically meaningful. Based on the smallest effect size found in Ollendick et al. (2016), Cohen's $d = 0.6$ was the smallest effect size of interest in the current study. Therefore, a significant equivalence test indicates an effect size of $d < 0.6$. Secondary analyses were conducted using HLGM and equivalence testing on clinician experience and referral source.

Sociodemographic and participant characteristics

Table 3 shows the demographic characteristics of the research sample at the pre-intervention phase for each treatment condition. The two active conditions, PMT and CPS, did not differ significantly with regard to baseline sociodemographic characteristics (see page 76). In addition, no significant differences were found between the participants in the two

conditions with regard to pre-treatment clinical severity (see Table 6 for ADIS CSR means and standard deviations, $t(19) = 0.22$, $p = .83$).

Attrition

Of the 160 families randomized to treatment, 18 did not attend the first session (11%; see Figure 1). Treatment completion was classed as seven sessions undertaken, with families having received the basic requisite skills in these first seven sessions. Six percent of families who commenced treatment dropped out before completion (3 PMT families and 6 CPS families). Altogether, 133 families went on to meet the criteria for a completed treatment (PMT = 66 families; CPS = 67 families). For clinical reasons, five families attended more than the 16 sessions offered in the trial. An analysis of the treatment dosage in the two active conditions showed no significant differences (PMT: $M = 12.64$, $SD = 2.67$; CPS: $M = 13.44$, $SD = 3.60$; $t(138) = -1.49$, $p = .14$).

Table 6. *Means, Standard Deviations, and Within-Group Effect Sizes for Treatment Response Outcome Measures at Each Time Point*

Condition	Descriptive	Time point		
		Pre-treatment (N = 160)	Post-treatment (N = 160)	6-month follow-up (N = 160)
ADIS CSR ODD				
PMT	Mean (*SD*)	6.77 (1.01)	3.77 (2.26)	3.69 (2.1)
	Hedges' *g*		1.89	1.83
CPS	Mean (*SD*)	6.74 (.83)	4.13 (2.19)	3.49 (2.1)
	Hedges' *g*		1.68	1.91
DBDRS				
PMT	Mean (*SD*)	5.03 (.21)	2.82 (2.31)	2.80 (2.56)
	Hedges' *g*		.98	1.04
CPS	Mean (*SD*)	5.36 (2.07)	3.37 (2.44)	2.99 (2.56)
	Hedges' *g*		.79	.88
CGI-S				
PMT	Mean (*SD*)	5.24 (.99)	2.94 (1.67)	
	Hedges' *g*		1.55	
CPS	Mean (*SD*)	4.95 (1.12)	3.49 (1.61)	
	Hedges' *g*		1.05	

Note. Raw data used for above calculations; PMT = Parent Management Training; CPS = Collaborative and Proactive Solutions; ADIS CSR ODD = Anxiety Disorders Interview Schedule, Clinician Severity Ratings, Oppositional Defiant Disorder; DBDRS = Disruptive Behavior Disorder Rating Scale; CGI-S = Clinical Global Impression – Severity.

PMT vs. CPS

Except for two CPS families, all of the completer families attended the post-treatment assessment (n = 131). At the 6-month follow-up, 15% of the PMT completer families (n = 10) and 13% of the CPS completer families (n = 9) did not return for assessment. Families who did not attend the follow-up assessment cited difficulties such as competing commitments or child refusal to attend. Some other families could not be reached by the assessors after three attempts. Chi-square analyses indicated that there was no significant difference in attrition between the PMT and CPS conditions at pre-treatment ($\chi 2$ (1, N = 160) = 0.25, p = .61), post-treatment ($\chi 2$ (1, N = 160) = 0.12, p = .73) or follow-up ($\chi 2$ (1, N = 160) = 0.10, p = .92).

Completer vs. non-completer. Results showed no differences between the 27 youth who dropped out (after randomization and before session 7) and those who completed treatment on pre-treatment variables, including the severity of behavior problems (ADIS CSR $\chi 2$ (4, N =160) = 3.37, p = .50).

Experienced clinical psychologists vs. clinical psychology interns. No difference in attrition rates by treatment type and therapist's experience was found $\chi 2$ (3, N = 142) = 0.41, p = .41.

Treatment fidelity

All sessions were audio-recorded, and independent expert raters coded two randomly selected sessions from 19 participants in both treatment conditions (13% of total N) to assess treatment adherence. Therapists in the PMT condition scored a mean rating of 4.86 (SD = 0.42) on the prescriptive scale of the Session Content Analysis checklist (5-point scale). Thus, PMT therapists were delivering content consistent with the PMT model. CPS therapists also delivered strategies consistent with this therapeutic model on the prescriptive scale (M = 5, SD = .00). As expected, the mean ratings across items on the proscriptive scale were low for

both conditions, indicating minimal crossover (PMT and CPS both scored: *M* = 1.00 [*SD* = .00]. From these results, it can be concluded that the PMT and CPS conditions were implemented with fidelity and without cross-therapy contamination.

Treatment response

Descriptive statistics for treatment outcomes, across the three treatment outcome measures (ADIS CSR, DBDRS, and CGI-S), by treatment condition at pre-treatment, post-treatment, and 6-month follow-up can be seen in Table 6 (see page 88).

ADIS CSRs. The CSR mean scores for the two active treatment groups were similar at post-treatment, with PMT showing slightly more symptomatic improvement than CPS (*M* difference = 0.36, see Table 6 for raw *M's* and *SD* scores). Both groups maintained these gains over the follow-up period, with CPS mean scores improving a further 0.64 points, compared to 0.08 points in the PMT condition. Within-group effect size values (Hedges' *g*) for both groups were found to exceed convention for a large effect at post-treatment and follow-up (see Table 6; Cohen, 1960). Whilst effect sizes for PMT remained constant between post-treatment and follow-up, effect sizes for CPS increased between the two time points from 1.68 to 1.91.

The unconditional HLGM revealed a treatment effect across time points ($p < .001$), indicating significant decreases in CSRs at post-treatment and follow-up (see Table 7). Table 7 also displays the results of the predictor model. The Akaike Information Criterion indicated that the unconditional model fit the data marginally better than the predictor model though the difference was below the conventional threshold (AIC < 2) for meaningful improvement in model fit (Burnham & Anderson, 2004; see Table 7 for model comparisons). As the predictor model did not improve model fit, the more parsimonious unconditional model was retained for interpretation.

There was no significant difference in CSR scores across treatment groups over time. Controlling for sex and age had no significant impact on treatment outcomes across the two treatment conditions (see Table 8 for full predictor model) and no three-way interaction was observed with regard to time, treatment group and age, or time, treatment group and sex. The growth trajectory of youth behavior problems in both treatment groups showed an equivalent linear rate of decrease in youth behavior problems (see Figure 2). Equivalence testing findings indicated that the PMT and CPS groups were comparable at post-treatment and follow-up (see Table 9). Taken together, these results indicate that significant improvement in CSR scores occurred over time in both groups and that no clinically important difference exists between the two treatment groups, regardless of age or sex.

Table 7.

Unconditional Model, Predictor Model and Model Comparisons for the ADIS CSR ODD

Unconditional Model					
Fixed effect	Coefficient	*SE*	*t*	*df*	*P*
For base rate, β0					
Intercept, γ00	6.398	.106	60.279	159	<.001
For Timepoint slope, β1					
Intercept, γ10	-1.585	.110	-14.435	159	<.001
Random effect	*SD*	Variance component	χ^2	*df*	*P*
INTRCPT1, u0	.320	.102	86.418	131	>.500
Timepoint slope, u1	.720	.518	152.544	131	.096
level-1, *r*	1.401	1.964			
Predictor Model					
Fixed effect	Coefficient	*SE*	*t*	*df*	*p*
For base rate, β0					
Intercept, γ00	6.266	.441	14.045	156	<.001
Therapy, γ01	.159	.214	.746	156	.457
For Timepoint slope, β1					
Intercept, γ10	-1.061	.467	-2.274	156	.024
Therapy, γ11	-.047	.221	-.214	156	.830
Random effect	*SD*	Variance component	χ^2	*df*	*p*
INTRCPT1, u0	.316	.100	84.883	128	>.500
Timepoint slope, u1	.726	.527	149.840	128	.091
level-1, *r*	1.406	1.977			

Model Comparisons

Model Adjustment	Unconditional	Predictor
Deviance (-2*LL)	1571.19	1581.08
Number of parameters	4	4
AIC	1579.19	1581.34
χ^2 statistic	-	2.15

Note. ADIS CSR ODD = Anxiety Disorders Interview Schedule, Clinical Severity Rating, Oppositional Defiant Disorder; LL – log-likelihood; AIC = Akaike Information Criterion

Table 8.

Unconditional Model, Predictor Model and Model Comparisons, Controlling for Age, and Sex, for the ADIS CSR ODD

Unconditional Model					
Fixed effect	Coefficient	*SE*	*t*	*df*	*p*
For base rate, β0					
Intercept, γ00	6.398	.106	60.279	159	<.001
For Timepoint slope, β1					
Intercept, γ10	-1.585	.110	-14.435	159	<.001
Random Effect	*SD*	Variance Component	χ^2	*df*	*p*
INTRCPT1, u0	.320	.102	86.418	131	>.500
Timepoint slope, u1	.720	.518	152.544	131	.096
level-1, *r*	1.401	1.964			
Predictor Model					
Fixed effect	Coefficient	*SE*	*t*	*df*	*p*
For base rate, β0					
Intercept, γ00	6.266	.441	14.045	156	<.001
Therapy, γ01	.159	.214	.746	156	.457
Sex, γ02	.030	.239	.127	156	.899
Age, γ03	.055	.051	1.076	156	.284
For Timepoint slope, β1					
Intercept, γ10	-1.061	.467	-2.274	156	.024
Therapy, γ11	-.047	.221	-.214	156	.830
Sex, γ12	-.288	.250	-1.151	156	.251
Age, γ13	-.001	.053	-.010	156	.992
Random effect	*SD*	Variance Component	χ^2	*df*	*p*
INTRCPT1, u0	.316	.100	84.883	128	>.500
Timepoint slope, u1	.726	.527	149.840	128	.091
level-1, *r*	1.406	1.977			
Model Comparisons					
Model Adjustment		Unconditional		Predictor	
Deviance (-2*LL)		1571.19		1581.08	
Number of parameters		4		4	
AIC		1579.19		1589.08	
χ^2 statistic		-		9.89	

Note. ADIS CSR ODD = Anxiety Disorders Interview Schedule, Clinical Severity Rating, Oppositional Defiant Disorder; LL – log-likelihood; AIC = Akaike Information Criterion

Figure 2.

Growth Trajectory of Behavior Problems on Three Measures by Treatment Condition (CPS and PMT) across Time

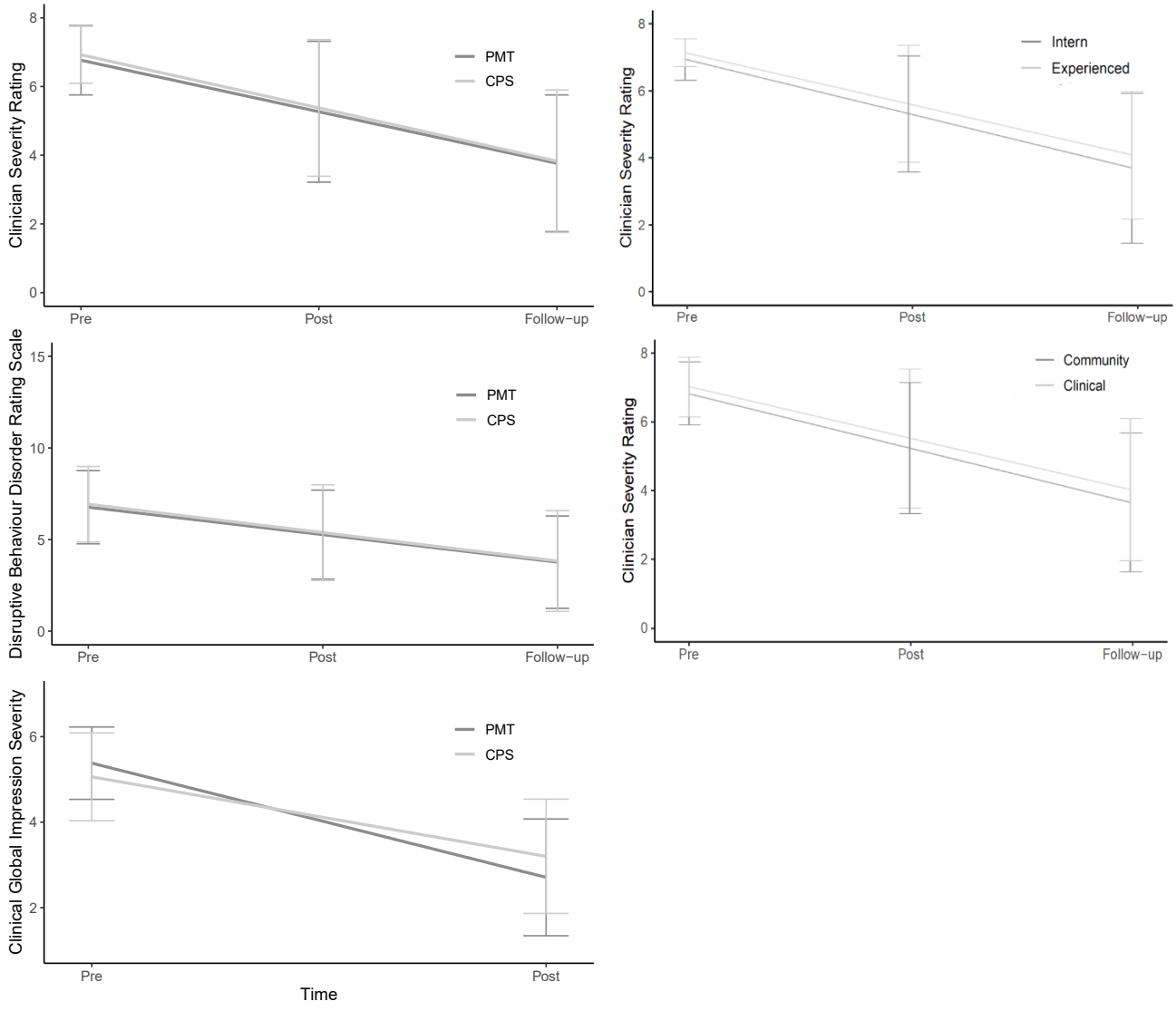


Table 9.

Equivalence Tests

Measure		*t*	*df*	*p*
ADIS CSR				
Therapy type				
	Post-treatment	3.44	157.53	< .001**
	6-month follow-up	3.60	157.96	< .001**
Clinician experience				
	Post-treatment	3.10	138.06	< .001**
	6-month follow-up	3.01	136.42	.002*
Referral source				
	Post-treatment	2.74	143.37	.003*
	6-month follow-up	2.21	142.04	.014*
DBDRS				
Therapy type				
	Post-treatment	3.43	149.95	< .001**
	6-month follow-up	3.56	149.82	< .001**
Clinician experience				
	Post-treatment	3.62	157.98	< .001**
	6-month follow-up	3.60	157.1	.011*
Referral source				
	Post-treatment	2.07	157.33	.007*
	6-month follow-up	2.95	156.19	< .001**
CGI Severity				
Therapy type				
	Post-treatment	1.399	136.42	.918
Clinician experience				
	Post-treatment	2.64	126.60	.004*
Referral source				
	Post-treatment	2.18	114.75	.016*

Note. ADIS CSR ODD = Anxiety Disorders Interview Schedule, Clinical Severity Rating Oppositional Defiant Disorder; DBDRS = Disruptive Behavior Disorders Rating Scale; CGI-S = Clinical Global Impression – Severity. Clinician experience = intern vs experienced clinical psychologist; Referral source = community vs clinical referral.

** $p < .001$; * $p < .05$

DBRS. Mean scores are marginally lower in the PMT group than the CPS group at post-treatment; however, this gap narrows by follow-up (*M* difference = 0.19; see Table 6 for raw *M's and SD's*). Within-group effect sizes are large for both PMT and CPS conditions at post-treatment and follow-up (see Table 6). The unconditional HLGM revealed a treatment effect across time points ($p < .001$), indicating significant decreases in DBDRS scores between pre- and post-treatment, and pre-treatment and follow-up (see Table 10). Table 10 also displays the results of the predictor model.

Model comparison (see Table 10) indicated that the predictor model (AIC = 1726.18) had a slightly lower AIC than the unconditional model (AIC = 1727.18). When sex and age were added to the model similar results were observed: unconditional AIC = 17.27.18, predictor model AIC = 1726.18. However, the AIC of 1.0 falls below the conventional threshold (AIC < 2) for meaningful improvement in model fit (Burnham & Anderson, 2004). In addition, the added predictors (sex, age) were not statistically significant. Therefore, the more parsimonious unconditional model was retained for interpretation.

In line with these findings, there was no significant difference in presenting symptoms across treatment groups over time for the DBDRS. Controlling for sex and age made no significant impact on treatment outcomes across the two treatment conditions (see Table 11 for full predictor model) and no three-way interaction was observed with regard to time, treatment group and age, or time, treatment group and sex. The trajectory of parent-reported ODD symptoms (DBDRS) across both treatment groups showed an equivalent linear rate of decrease (see Figure 2, page 93). Equivalence testing revealed that the PMT and CPS groups yielded comparable DBDRS scores at each time point (see Table 9). Based on the traditional null hypothesis test and the equivalence test combined, we can conclude that the observed effect is not significantly different from zero and is statistically equivalent to zero.

Table 10.

Unconditional Model, Predictor Model and Model Comparisons for the DBDRS

Unconditional Model					
Fixed effect	Coefficient	*SE*	*t*	*df*	*p*
For base rate, β_0					
Intercept, γ_{00}	5.009	.162	30.922	155	<.001
For Timepoint slope, β_1					
Intercept, γ_{10}	-1.414	.134	-10.543	155	<.001
Random effect	*SD*	Variance component	χ^2	*df*	*p*
INTRCPT1, u_0	1.022	1.045	149.859	125	.064
Timepoint slope, u_1	.585	.342	139.218	125	.182
level-1, *r*	1.851	3.427			
Predictor Model					
Fixed effect	Coefficient	*SE*	*t*	*df*	*p*
For base rate, β_0					
Intercept, γ_{00}	5.395	.664	8.119	152	<.001
Therapy, γ_{01}	.335	.320	1.048	152	.296
For Timepoint slope, β_1					
Intercept, γ_{10}	-1.502	.563	-2.666	152	.009
Therapy, γ_{11}	.117	.271	.431	152	.667
Random effect	*SD*	Variance component	χ^2	*df*	*p*
INTRCPT1, u_0	.966	.934	135.680	122	.188
Timepoint slope, u_1	.623	.388	136.874	122	.169
level-1, *r*	1.842	3.392			

Model Comparisons

Model Adjustment	Unconditional	Predictor
Deviance (-2*LL)	1719.18	1718.67
Number of parameters	4	4
AIC	1727.18	1726.67
χ^2 statistic	-	.05

Note. DBDRS = Disruptive Behavior Disorders Rating Scale; LL – log-likelihood; AIC = Akaike Information Criterion

Table 11.

Unconditional Model, Predictor Model and Model Comparisons, Controlling for Age, and Sex, for the DBDRS

Unconditional Model

Fixed effect	Coefficient	*SE*	*t*	*df*	*p*
For base rate, β0					
Intercept, γ00	5.009	.162	30.922	155	<.001
For Timepoint slope, β1					
Intercept, γ10	-1.414	.134	-10.543	155	<.001
Random effect	*SD*	Variance component	χ^2	*df*	*p*
INTRCPT1, u0	1.022	1.045	149.859	125	.064
Timepoint slope, u1	.585	.342	139.218	125	.182
level-1, *r*	1.851	3.427			

Predictor Model

Fixed effect	Coefficient	*SE*	*t*	*df*	*p*
For base rate, β0					
Intercept, γ00	5.395	.664	8.119	152	<.001
Therapy, γ01	.335	.320	1.048	152	.296
Sex, γ02	-.324	.347	-.932	152	.353
Age, γ03	.213	.072	2.971	152	.003
For Timepoint slope, β1					
Intercept, γ10	-1.502	.563	-2.666	152	.009
Therapy, γ11	.117	.271	.431	152	.667
Sex, γ12	.017	.302	.055	152	.956
Age, γ13	-.096	.065	-1.477	152	.142
Random effect	*SD*	Variance component	χ^2	*df*	*p*
INTRCPT1, u0	.966	.934	135.680	122	.188
Timepoint slope, u1	.623	.388	136.874	122	.169
level-1, *r*	1.842	3.392			

Model Comparisons

Model Adjustment	Unconditional	Predictor
Deviance (-2*LL)	1719.18	1718.18
Number of parameters	4	4
AIC	1727.18	1726.18
χ^2 statistic	-	1.00

Note. DBDRS = Disruptive Behavior Disorders Rating Scale; LL – log-likelihood; AIC = Akaike Information Criterion

CGI-S. When controlling for age, sex and the pre-treatment score, the results of the ANCOVA for the CGI-S demonstrated a significant Treatment x Time interaction, $F(1, 156) = 13.16$, $p = .000$). Means demonstrate that PMT (*Mpre* = 5.24 [*SD* = 0.99], *Mpost* = 2.94 [1.67]) had superior outcomes compared with CPS (*Mpre* = 4.95[1.12], *Mpost* = 3.49[1.61]; see Table 6 for raw M's). T-tests indicated that the PMT (t (1, 78) = 20.45, p = < .001) condition demonstrated a significantly greater reduction in the overall presence and impact of psychological symptomatology, compared with the CPS condition (t (1, 80) = 16.90, p = <.001). The Hedges' g within-groups effect size value at post-treatment was large in magnitude (see Table 6). The growth trajectory presented in Figure 2 also showed that the PMT group had a greater initial linear decrease than CPS, and that the PMT treatment was marginally superior to the CPS treatment. Equivalence testing for the CGI-S was not significant (see Table 9). Thus, both the traditional null hypothesis test and the equivalence test combined demonstrated a clinically important difference between the two treatment groups, as PMT was superior to CPS for improving clinician-rated global functioning**.**

***Secondary analysis: Efficacy vs. effectiveness characteristics*.**

Interns vs. experienced clinical psychologists and community vs. clinical referrals. Descriptive statistics for treatment outcomes across two measures (ADIS CSR and DBDRS) for clinical experience and referral source is provided in Table 12. Aside from age of participants, no differences at baseline on sociodemographic variables were observed between interns and experienced psychologists (see Table 13-14). Age was controlled for in the analyses to account for this baseline difference. We explored clinician experience and referral source as predictors of treatment outcomes in a sensitivity analyses. These analyses involved adding these variables as main effects, whilst controlling for age, sex and treatment

type, to the full model. Model comparisons for Clinical Experience (see Table 17) revealed that the DBDRS unconditional model had a slightly higher AIC (1656.13) than the predictor model (1654.01). However, the AIC falls below the conventional threshold (AIC < 2) for meaningful improvement in model fit (Burnham & Anderson, 2004). Therefore, as the added predictors (sex, age) were also not statistically significant, the unconditional model was retained for interpretation. With regard to model comparisons for Clinical Experience on the CSR the AIC for the unconditional model was 1523.618, whereas the predictor model was 1535.541 (see Table 15). Therefore, the unconditional model was interpreted.

In terms of model comparisons for Referral on the CSR, the unconditional model AIC was 1480.448 and the predictor model AIC – 1486.605 (see Table 16). The unconditional model was, therefore, interpreted. Finally, the model comparisons for Referral on the DBDRS demonstrated that the unconditional model had a lower AIC (1640.876) than the predictor model (1641.636; see Table 18). Again, this was not below the conventional threshold (AIC < 2) for meaningful improvement in model fit (Burnham & Anderson, 2004). However, it was still retained as the predictor model did not add to the significant findings. The HLGM model revealed no main effect for clinician experience (CSR; β = -.017, t = .071, p = .94; DBDRS; β = .27, t = .93, p = .36), nor the type of referral (CSR: β = .053, t = .23, p = .82; DBDRS; β = .21, t = .71, p = .46) across time points (see Table 15-18). No significant three-way interaction was observed with regard to time, treatment group and clinician experience or for time, treatment group and referral source. The growth trajectory for clinician experience and referral source showed an equivalent linear rate of decrease between efficacy versus effectiveness features (see Figure 2). Equivalence testing revealed that the intern clinical psychologist versus experienced clinical psychologist groups yielded comparable CSR, DBDRS and CGI-S scores at each time point. Mean scores on these measures were also were

shown to be equivalent for the community referred versus the clinical referred group at post-treatment and follow-up (see Table 9).

When controlling for pre-treatment score, age, sex and the treatment type, the results of the ANCOVA for the CGI-S for clinician experience ($F(2, 156) = 1.322$, $p = .270$) and referral source ($F(1, 156) = 6.56$, $p = .419$) were not significant. Altogether, these results indicate no significant differences in outcomes by clinician experience or referral sources.

Table 12.

Means and Standard Deviations for Clinician Experience (Interns vs Experienced) and Referral Source (Community vs Clinical) at each Timepoint

Variable	Pre-treatment	Post-treatment	6-month follow-up
	M(SD)	*M(SD)*	*M(SD)*
Clinician experience			
CSR ADIS ODD			
Intern	6.79 (0.98)	3.83 (2.13)	3.78 (1.86)
Experienced	6.77 (0.83)	4.0 (1.90)	3.68 (2.19)
DBDRS			
Intern	2.60 (0.49)	2.29 (0.66)	2.09 (0.54)
Experienced	2.66 (0.48)	2.23 (0.60)	2.17 (0.56)
CGI-S			
Intern	5.34 (0.98)	3.04 (1.34)	
Experienced	5.09 (0.92)	2.86 (1.40)	
Referral source			
CSR ADIS ODD			
Community	6.58 (0.92)	3.72 (1.90)	3.57 (2.02)
Clinical	6.91 (0.87)	4.01 (2.01)	4.05 (2.07)
DBDRS			
Community	2.70 (0.41)	2.32 (0.68)	2.14 (0.57)
Clinical	2.59 (0.50)	2.23 (0.60)	2.16 (0.53)
CGI-S			
Community	5.23 (0.89)	2.74 (1.32)	
Clinical	5.17 (1.02)	3.01 (1.34)	

Note. ADIS CSR ODD = Anxiety Disorders Interview Schedule, Clinical Severity Rating Oppositional Defiant Disorder; DBDRS = Disruptive Behavior Disorders Rating Scale; CGI-S = Clinical Global Impression – Severity.

Table 13.

Categorical Sociodemographic Variable Chi-Square Results for Interns and Experienced Clinicians at Baseline

Variable	χ^2	*p*
Gender	0.04	.85
Ethnicity (mother only)	16.32	.36
Family Structure	7.34	.29
Type of School	1.91	.39
Mother Education	0.90	.93
Father Education	5.60	.23
Income	1.00	.60

Table 14.

Descriptive Statistics, and ANOVA Results for Continuous Sociodemographic Variables and Interns and Experienced Clinicians at Baseline

Variable	Intern *M(SD)*	Experienced *M(SD)*	*F*	*p*
Age	8.52 (1.84)	9.39 (2.16)	6.76	.01*
ADIS CSR ODD Pre	6.79 (0.98)	6.77 (0.83)	.008	.93

Note. ANOVA = analysis of variance. ADIS CSR ODD Pre= Anxiety Disorders Interview Schedule, Clinical Severity Rating, Oppositional Defiant Disorder Pre-Treatment.

* $p < .05$

Table 15

Unconditional Model, Predictor Model and Model Comparisons, Controlling for Age and Sex, for Clinician Experience on the ADIS CSR ODD

Unconditional Model

Fixed effect	Coefficient	*SE*	*t*	*Df*	*p*
For base rate, β0					
Intercept, γ00	6.381	.114	56.073	141	<.001
For Timepoint slope, β1					
Intercept, γ10	-1.575	.111	-14.171	141	<.001
Random effect	*SD*	Variance component	χ^2	*Df*	*p*
INTRCPT1, u0	.338	.114	83.757	131	>.500
Timepoint slope, u1	.702	.493	147.766	131	.150
level-1, *r*	1.424	2.026			

Predictor Model

Fixed effect	Coefficient	*SE*	*t*	*Df*	*p*
For base rate, β0					
Intercept, γ00	6.257	.515	12.152	137	<.001
Therapy, γ01	.093	.242	.387	137	.700
Sex, γ02	.042	.260	.160	137	.873
Age, γ03	.061	.058	1.042	137	.299
Clinical, γ04	.010	.246	.039	137	.969
For Timepoint slope, β1					
Intercept, γ10	-1.070	.499	-2.143	137	.034
Therapy, γ11	-.012	.236	-.049	137	.961
Sex, γ12	-.294	.255	-1.152	137	.251
Age, γ13	-.002	.056	-.039	137	.969
Clinical, γ14	.017	.243	.071	137	.944
Random effect	*SD*	Variance component	χ^2	*Df*	*p*
INTRCPT1, u0	.337	.114	81.610	127	>.500
Timepoint slope, u1	.711	.506	144.326	127	.130
level-1, *r*	1.432	2.051			

Model Comparisons

Model Adjustment	Unconditional	Predictor
Deviance (-2*LL)	1515.618	1527.541
Number of parameters	4	4
AIC	1653	1535.541
χ^2 statistic	-	11.923

Note. Clinician Experience = Intern vs experienced clinical psychologist; ADIS CSR ODD = Anxiety Disorders Interview Schedule, Clinical Severity Rating, Oppositional Defiant Disorder; LL – log-likelihood; AIC = Akaike Information Criterion

Table 16.

Unconditional Model, Predictor Model and Model Comparisons, Controlling for Age and Sex, for Referral Source on the ADIS CSR ODD

Unconditional Model					
Fixed effect	Coefficient	*SE*	*t*	*Df*	*p*
For base rate, β0					
Intercept, γ00	6.381	.108	58.894	147	<.001
For Timepoint slope, β1					
Intercept, γ10	-1.557	.113	-13.805	147	<.001
Random effect	*SD*	Variance component	χ^2	*Df*	*P*
INTRCPT1, u0	.328	.108	84.626	125	>.500
Timepoint slope, u1	.741	.549	152.894	125	.045
level-1, *r*	1.374	1.889			
Predictor Model					
Fixed effect	Coefficient	*SE*	*t*	*Df*	*p*
For base rate, β0					
Intercept, γ00	5.956	.464	12.846	143	<.001
Therapy, γ01	.096	.217	.444	143	.657
Sex, γ02	.066	.242	.272	143	.786
Age, γ03	.082	.052	1.585	143	.115
Referral, γ04	.444	.220	2.018	143	.045
For Timepoint slope, β1					
Intercept, γ10	-1.115	.501	-2.225	143	.028
Therapy, γ11	-.058	.229	-.251	143	.802
Sex, γ12	-.258	.260	-.994	143	.322
Age, γ13	-.018	.055	-.324	143	.747
Referral, γ14	.053	.232	.227	143	.821
Random effect	*SD*	Variance component	χ^2	*Df*	*p*
INTRCPT1, u0	.300	.090	79.256	121	>.500
Timepoint slope, u1	.760	.578	151.476	121	.031
level-1, *r*	1.372	1.883			

Model Comparisons		
Model Adjustment	Unconditional	Predictor
Deviance (-2*LL)	1472.448	1478.605
Number of parameters	4	4
AIC	1480.448	1486.605
χ^2 statistic	-	6.157

Note. Referral Source = clinical vs community; ADIS CSR ODD = Anxiety Disorders Interview Schedule, Clinical Severity Rating, Oppositional Defiant Disorder; LL – log-likelihood; AIC = Akaike Information Criterion

Table 17.

Unconditional Model, Predictor Model and Model Comparisons, Controlling for Age and Sex, for Clinician Experience on the DBDRS

Unconditional Model

Fixed effect	Coefficient	*SE*	*t*	*Df*	*p*
For base rate, β_0					
Intercept, γ_{00}	5.016	.166	30.223	140	<.001
For Timepoint slope, β_1					
Intercept, γ_{10}	-1.417	.135	-10.489	140	<.001
Random effect	*SD*	Variance component	χ^2	*Df*	*p*
INTRCPT1, u_0	.965	.931	152.843	125	.046
Timepoint slope, u_1	.613	.375	141.968	125	.143
level-1, *r*	1.833	3.361			

Predictor Model

Fixed effect	Coefficient	*SE*	*t*	*Df*	*p*
For base rate, β_0					
Intercept, γ_{00}	5.581	.724	7.705	136	<.001
Therapy, γ_{01}	.240	.344	.698	136	.486
Sex, γ_{02}	-.400	.367	-1.092	136	.277
Age, γ_{03}	.245	.083	2.961	136	.004
Clinical, γ_{04}	.002	.351	.005	136	.996
For Timepoint slope, β_1					
Intercept, γ_{10}	-1.723	.595	-2.898	136	.004
Therapy, γ_{11}	.224	.285	.786	136	.433
Sex, γ_{12}	.035	.304	.116	136	.908
Age, γ_{13}	-.091	.068	-1.351	136	.179
Clinical, γ_{14}	.269	.290	.927	136	.355
Random effect	*SD*	Variance component	χ^2	*Df*	*p*
INTRCPT1, u_0	.912	.912	138.290	121	.135
Timepoint slope, u_1	.654	.427	138.684	121	.130
level-1, *r*	1.821	3.314			

Model Comparisons

Model Adjustment	Unconditional	Predictor
Deviance (-2*LL)	1648.126	1646.013
Number of parameters	4	4
AIC	1656.126	1654.013
χ^2 statistic	-	2.113

Note. Clinician Experience = Intern vs experienced psychologist; DBDRS = Disruptive Behavior Disorders Rating Scale; LL – log-likelihood; AIC = Akaike Information Criterion

Table 18.

Unconditional Model, Predictor Model and Model Comparisons, Controlling for Age and Sex, for Referral Source on the DBDRS

Unconditional Model

Fixed effect	Coefficient	*SE*	*t*	*df*	*p*
For base rate, β_0					
Intercept, γ_{00}	4.981	.168	29.683	144	<.001
For Timepoint slope, β_1					
Intercept, γ_{10}	-1.392	.139	-9.987	144	<.001
Random effect	*SD*	Variance component	χ^2	*df*	*p*
INTRCPT1, u_0	.989	.977	137.570	119	.117
Timepoint slope, u_1	.612	.375	133.256	119	.176
level-1, *r*	1.871	3.499			

Predictor Model

Fixed effect	Coefficient	*SE*	*t*	*df*	*p*
For base rate, β_0					
Intercept, γ_{00}	5.226	.714	7.320	140	<.001
Therapy, γ_{01}	.257	.336	.764	140	.446
Sex, γ_{02}	-.223	.372	-.599	140	.550
Age, γ_{03}	.206	.079	2.600	140	.010
Referral, γ_{04}	.007	.341	.020	140	.984
For Timepoint slope, β_1					
Intercept, γ_{10}	-1.687	.603	-2.796	140	.006
Therapy, γ_{11}	.146	.285	.510	140	.589
Sex, γ_{12}	.056	.314	.178	140	.917
Age, γ_{13}	-.102	.068	-1.496	140	.559
Referral, γ_{14}	.206	.290	.709	140	.458
Random effect	*SD*	Variance component	χ^2	*df*	*p*
INTRCPT1, u_0	.966	.932	126.197	115	.224
Timepoint slope, u_1	.644	.414	129.405	115	.170
level-1, *r*	1.861	3.462			

Model Comparisons

Model Adjustment	Unconditional	Predictor
Deviance (-2*LL)	1632.876	1633.636
Number of parameters	4	4
AIC	1640.876	1641.636
χ^2 statistic	-	.760

Note. Referral Source = clinical vs community; DBDRS = Disruptive Behavior Disorders Rating Scale; LL – log-likelihood; AIC = Akaike Information Criterion

Treatment remission

Remission was determined by receiving a score below the diagnostic cut-off for ODD on the ADIS CSR scale (CSR < 4), and/or a rating of much improved (score of 1) or very much improved (score of 2) on the CGI Improvement scale (see Table 19). Overall, at post-treatment, on the ADIS CSR, 40-50% of cases were diagnosis-free with results revealing PMT had 10% more diagnosis-free cases than CPS. Both groups maintained gains at follow-up, with CPS showing an additional 5% improvement. No statistically significant differences were observed between the treatment groups post-treatment or follow-up (see Table 19). Results from the CGI-I demonstrated that approximately 60-70% of participants were considered much or very much improved following treatment. Again, differences between the treatment groups did not reach statistical significance (see Table 19).

To conclude this chapter, this RcT contributes to the knowledge base about alternative treatments for ODD by adding effectiveness research to existing efficacy studies, thereby strengthening conclusions that can be reached about the effectiveness of CPS in community settings outside of the U.S. Findings from Phase 1 supported all our stated hypotheses. First, CPS was found to be as effective as PMT in reducing symptoms, enhancing global functioning, and achieving diagnostic recovery in youth with ODD when implemented in a real-world setting outside the U.S. Second, youth in the CPS condition maintained improvements in ODD symptoms at levels comparable to those in the PMT group between post-intervention and the 6-month follow-up. Finally, attrition rates were moderately high and comparable across both the PMT and CPS groups. An unexpected group difference favoring PMT was observed on one clinician-rated measure (CGI-S), and while this was not supported by other outcome measures, it warrants further investigation. The following chapter will review the methods used in Phase 2 of this RcT study, followed by the results.

Table 19.

Treatment Remission and Chi-Square Results by Treatment Condition (PMT vs. CPS)

Measure	PMT	CPS	χ^2	*p*
	N (%)	*N* (%)		
ADIS CSR ODD <4				
Post-treatment	33 (50)	26 (40)	1.5	.22
Follow-up	29 (52)	26 (45)	.55	.46
CGI-I				
Post-treatment	45 (69)	38 (59)	1.63	.20

Note. ADIS CSR ODD = Anxiety Disorders Interview Schedule, Clinical Severity Rating Oppositional Defiant Disorder, CGI-I = Clinical Global Impression – Improvement.

CHAPTER 3: Phase 2 Research Methodology

Study Aims and Hypotheses

With the effectiveness of CPS for treating youth with ODD established in a real-world community setting in Chapter 2, the next focus of this study was to assess the social validity of CPS compared to PMT (Exploratory Inquiry 2; see Table 2, page 69). This study complemented the earlier use of symptom and diagnostic-based measures by collecting subjective insights on treatment acceptability and the social significance of CPS treatment directly from the family's perspective. This is the first study to our knowledge to comprehensively examine the treatment acceptability of a novel therapy, CPS, compared to PMT for youth with ODD. Knowing that treatment is acceptable to parents is vital for clinicians selecting a treatment, but also because acceptability is associated with retention and adherence, which is especially problematic in this field (Nock & Ferriter, 2005; see Santa & Fontenelle, 2011 for review). The following Chapter is taken from a second paper on the treatment acceptability of CPS compared to PMT, which has been submitted to Behavior Therapy and received a 'revise and resubmit' (see Appendix B; Murrihy et al., 2024).

Altogether, the overarching aim of this thesis was to investigate the effectiveness and acceptability of a novel treatment, CPS, as an alternative treatment option for youth with ODD. Phase 2 of this study represents an exploratory inquiry, aimed at addressing the current gap in the literature by determining whether families view CPS as an acceptable treatment for youth with ODD. Furthermore, if CPS is deemed an acceptable treatment, it will be compared to the highly accepted PMT to assist clinicians and parents in treatment selection (see Table 2 for Hypotheses, page 69).

Method

The study's second phase was drawn from the same dataset as the first phase and employed the same participants (see Table 3 for sociodemographic variables for PMT and CPS at Baseline), procedures, and interventions (see page 76).

Procedure

After the treatment period, families completed the following self-report questionnaires using Qualtrics software (Version 3, 2016). The Treatment Adherence Questionnaire was the sole questionnaire to be administered multiple times, evaluating parent adherence at the third, sixth, and ninth sessions.

Measures

The Parent Evaluation Inventory. (PEI; Kazdin, 1980a*)* is a 19-item questionnaire for parents designed to assess parents' acceptance of interventions for their child with behavior problems. The first subscale, treatment acceptability (8 items, scores range from 8-40) measures the extent to which parents view the treatment procedures as appropriate, reasonable, interesting, and enjoyable. Examples of questions include: “How much did you enjoy parent training” and “How interesting were the sessions?”. The second subscale, patient progress (11 items; scores range from 11-55) assesses parents' perceptions of their parenting improvements and their child's progress. This includes asking questions like: “How many more skills do you think you have now compared to when you started?”, and “Please rate how much you think you learned from the sessions”. Both subscales were scored on a 5-point Likert-type scale where 1 indicated responses akin to “nothing learned,” and 5 corresponded to responses indicative of having “learned a lot” (a midpoint of 3 is a moderate acceptability rating). Total scores can range from 19 to 95 with higher scores indicating greater acceptability. The PEI scale has demonstrated high levels of reliability and validity (Kazdin,

1980a; 1980b; see Kazdin, 2000; Wilson & Flamming, 1991). In this study, the treatment acceptability subscale internal consistency was α = .88 and patient progress was α = .94.

The Barriers to Treatment Participation Scale. (BTPS; Kazdin, Holland, Crowley, & Breton, 1997) is a questionnaire for parents that assesses barriers to treatment completion that influence the acceptability of treatment. Parents, rather than children, were chosen to complete the BTPS because they are generally responsible for making decisions regarding treatment attendance and termination (Armbruster & Fallon, 1994). The BTPS comprises 44 items, rated on a 5-point scale (1 is a statement similar to = never a problem, 5 is comparable to = very often a problem). A higher score indicates more barriers, and therefore, less treatment acceptability. Three subscales were used in this study that directly relate to the experience of treatment and associated barriers. These include (1) treatment demands and issues (10 items) that reflect concerns and complaints about how well the child understood treatment and how hard the assigned work was for the parent; (2) perceived relevance of treatment (8 items), which measured the relevance and necessity of therapy; and (3) the relationship with the therapist (6 items), which related to the working alliance and how confident the parents perceived the therapist to be that their treatment would work. In the treatment demand and relationship with therapist subscales several items were deemed irrelevant for this study and were removed (e.g., “this treatment cost too much” and “the therapist did not call me enough”). Three items (5, 9, 10) were removed from treatment demands, and two items (19, 37) from the relationship with therapist subscale. The BTPS has moderate to good reliability (range .69-.80), inter-rater reliability, and convergent and discriminant validity (Kazdin et al., 1997a, 1997b). In terms of reliability, in the current study, the perceived relevance subscale was α = .78, the treatment demands subscale was α = .61, and satisfaction with therapist subscale was α = .62.

The Treatment Adherence Questionnaire. (TAQ; Nock & Kazdin, 2005) is a parent and therapist report of the quality and quantity of parental adherence to the treatment program. Adherence is an indicator of engagement that is associated with treatment acceptability (Fleming et al., 2022). Parents are asked to self-report on one item: "During the past week in what percentage of your interactions with your child did you use the skills you have learned so far?" Therapists are also asked to rate the quality of parental adherence to treatment on one item. The items are scored on a 0-4 scale where 0 equals no adherence/mastery and 4 equals perfect adherence/mastery. It is noteworthy that adherence results in session 3 may be confounded for the CPS group because the clinical assessment (ALSUP[5]) often extended to the third session, limiting exposure to treatment.

Results

Statistical analyses

Baseline differences between the active treatment conditions were compared on key demographic variables using chi-square and *t*-test statistics. An intent-to-treat analysis was conducted to assess treatment acceptability outcomes for the randomized sample *(N* = 160). Due to the nature of the planned analyses, missing data were imputed using expectation maximization, with no item exceeding 25% of missing cases at the variable level. Data was missing because participants did not attend assessments or randomly missed completing questionnaire items. IBM SPSS Statistics for Windows (Version 27.0) was used for all analyses, with statistical significance determined at a *p*-value of less than .05. One-way

[5] The ALSUP is the assessment of lagging skills and unsolved problems. It is used as part of a wide-ranging clinical assessment to identify specific lagging skills and unsolved problems that pertain to a particular child or adolescent.

between groups ANOVAs were used to examine the effect of each therapy on treatment acceptability, consumer satisfaction and progress, adherence, and barriers to treatment.

Baseline characteristics

The two active treatments did not differ significantly on key socioeconomic demographics (gender, age, schooling, maternal and paternal education, income) or clinical severity of behavioral difficulties at the study's outset (see Table 3).

Treatment acceptability

PEI. ***Treatment acceptability***. Ratings for treatment acceptability were high for both PMT and CPS conditions (PMT: $M = 34.29/40$, $SD = 4.03$; CPS: $M = 33.64/40$, $SD = 4.32$). There were no significant differences found between treatment conditions on parent-rated treatment acceptability: F (1, 158), .972 $p = .326$.

Patient progress. Ratings for perceived patient progress were also high for both treatments (higher score = greater acceptability/progress; PMT: $M = 43.23/55$, $SD = 7.24$; CPS: $M = 40.92/55$, $SD = 7.24$). Parents viewed their child's progress as significantly better in the PMT group compared to CPS: F (1, 158), 4.08 $p = .045$.

BTPS. ***Perceived relevance***. Parents in the CPS group scored significantly higher on the BTPS ($M = 14.55$ $SD = 3.88$; the scoring range is 8-40), thereby perceiving treatment as less relevant, than parents in the PMT group ($M = 13.16$, $SD = 3.31$; F (1, 158), 5.88, $p = .016$).

Treatment demands. Results of a one-way ANOVA indicated a statistically significant difference in perceived treatment demands F (1, 158), 9.79 $p < .01$. Parents in the CPS condition ($M = 10.66$, $SD = 2.85$; scoring range is 7-35) scored higher than parents in the

PMT condition (M = 9.45, SD = 2.15). Thus, parents in the CPS group perceived treatment as more demanding.

Relationship with therapist. The one-way ANOVA revealed no statistically significant difference in satisfaction with the therapist F (1, 158), .001, p = .98. Parents in the PMT condition reported similar scores (M = 4.68, SD = 1.14) to parents in the CPS condition (M = 4.69, SD = 1.07). The scoring range for this subscale is 4-20.

Treatment Adherence Questionnaire. Descriptive statistics for adherence, across two outcome measures (mother-rated and therapist-rated adherence), by treatment condition at Session 3, 6, and 9 can be seen in Table 20. A one-way ANOVA revealed a statistically significant difference in mother and therapist-rated adherence to treatment between the two active conditions (see Table 20). Both therapists and mothers showed greater treatment adherence in the PMT condition compared to CPS.

In conclusion, this Phase 2 study found that parents rated both CPS and PMT as highly acceptable for youth with ODD, with a slight PMT advantage on several measures that warrant further consideration. Taken together with Phase 1, this thesis enhances the knowledge base on alternative treatments for ODD, demonstrating that CPS is both an effective and acceptable treatment in the real-world community setting, comparable to PMT. The next chapter will discuss the implications of these findings, examine the study's strengths and limitations, and propose directions for future research.

Table 20.

Raw Means and Standard Deviations by Treatment Condition (PMT vs CPS) for Mother and Therapist Rated Treatment Adherence at Sessions 3, 6, and 9

	Time point		
Condition	Session 3 Mean (*SD*)	Session 6 Mean (*SD*)	Session 9 Mean (*SD*)
Mother-rated			
PMT	2.38 (1.02)	2.57 (.85)	2.63 (.73)
	N = 68	*N* = 65	*N* = 62
CPS	.86 (.77)	1.53 (.77)	1.84 (.93)
	N = 65	*N* = 66	*N* = 62
Significance test	*F* (1, 131), 93.40 *p* <.001	*F* (1, 129), 42.07 *p* <.001	*F* (1, 122), 27.84 *p* <.001
Therapist-rated			
PMT	2.75(.93)	2.74 (.87)	2.77 (.78)
	N = 69	*N* = 66	*N* = 62
CPS	1.34 (1.04)	2.04 (.88)	2.49 (.80)
	N = 67	*N* = 67	*N* = 63
Significant test	*F* (1, 134), 69.74 *p* <.001	*F* (1, 131), 21.31 *p* <.001	*F* (1, 123), 4.0 *p* =.048

Note. PMT = Parent Management Training; CPS = Collaborative and Proactive Solutions. Adherence is rated on a 0-4 Likert scale from 0% adherence/mastery to 100% adherence/mastery.

CHAPTER 4: General Discussion

Project Overview

Over the past two decades, significant progress has been made in understanding ODD (Burke et al., 2018), with research showing that it is more severe and associated with greater impairment than initially thought (AIHW, 2023; Burke et al., 2014; Mohammadi et al., 2020; Nock et al., 2007; Ollendick et al., 2016). This growing recognition of ODD's seriousness, coupled with the high demand for support, underscores the urgent need to ensure access to effective and acceptable evidence-based treatments (Kessler et al., 2012). Whilst PMT has been the predominant treatment for youth with ODD since the 1970s (Fisher & Gilliam, 2012), and has achieved marked success, researchers have argued that the model has significant shortcomings, indicating substantial room for improvement in clinical outcomes (Chacko et al., 2016; Lundahl et al., 2006; Ollendick et al., 2016).

Specifically, there are four concerns frequently cited concerning PMT. First, studies have shown that up to 51% of youth retain a clinical diagnosis after treatment (Niec et al., 2016; Ollendick et al., 2016; Scott, 2005). Second, attrition is high, with around a quarter of families dropping out of treatment before it is completed. Third, treatment gains demonstrated by those who complete treatment are not always maintained (Chacko et al., 2016; Lundahl et al., 2006). Lastly, a societal shift in beliefs about the best way to parent has resulted in a substantial cohort of parents moving away from behaviorism towards relationship and attachment-based approaches (Canning et al., 2023; Coyne, 2013; Jugovac et al., 2022). In sum, there remains much scope for improvement in treatments for ODD and a need for alternative treatment models that reflect a variety of parenting values and preferences (Canning et al., 2023; Coyne, 2013).

Collaborative and Proactive Solutions adopts a relationship-based approach and has shown promising results in the literature for treating ODD (Greene, 1998). Efficacy trials examining CPS have shown that the treatment effectively reduces ODD symptomatology and leads to global improvement in youth at rates comparable to PMT (Greene et al., 2004; Ollendick et al., 2016). Validating a treatment like CPS involves several steps and requires the use of different but complementary research designs, with a focus on internal, external, and social validity (Chambless & Hollon, 1998; Ollendick et al., 2016; Wolf, 1978). While efficacy trials with high internal validity and tight controls have been conducted (Greene et al., 2004; Ollendick et al., 2016), these results have yet to be replicated in studies that incorporate real-world effectiveness features (i.e., service-oriented settings, clinically referred clients, and clinicians employed by the clinic).

Furthermore, as CPS is an emerging treatment, further research examining the acceptability of treatment content and procedures from the family's perspective is required to guide treatment selection and minimize attrition (Auby, 2016; Ollendick et al., 2016). In line with this, attrition rates need to be examined to determine if the high dropout rate affecting PMT treatment, is also present in CPS. Thus, the overarching aim of this thesis was to address these gaps and contribute to the research base of potential alternative treatments for youth with ODD. This was the first study to attempt to replicate earlier efficacy research, modifying the research design to incorporate real-world effectiveness features, while, at the same time, assessing treatment durability, acceptability, attrition, and transportability beyond the U.S. (Ollendick et al., 2016). These modifications are necessary to improve generalizability and strengthen conclusions about CPS's acceptability, effectiveness, and transportability to real-world settings (Chambless & Hollon, 1998; Ollendick et al., 2016). In all, this study may hold the key to broadening treatment options for youth with ODD and aims to guide clinicians and parents with treatment selection. These aims were achieved in

the current project in two phases. Phase 1 of this research (Murrihy et al., 2023; Appendix A) was an RcT that investigated CPS as an alternative psychosocial treatment for youth with ODD, and Phase 2 consisted of an exploratory analysis to investigate the treatment acceptability of CPS, compared to the well-regarded PMT (Murrihy et al., 2024; Appendix B). This final chapter will summarize the key findings from Phases 1 and 2 of this research, considering their relevance in the context of existing literature and their practical implications. The strengths and weaknesses of the research will then be discussed, along with suggestions for future research directions.

Summary of Current Findings

Phase 1 findings

This study examined the effectiveness of CPS for improving ODD symptomatology in 160 randomly assigned youth aged 7-14 years (72% male, $M = 9$ years) and compared it to the gold standard treatment, PMT, at three time points: baseline, treatment completion, and at 6-month follow-up. Utilizing a hybrid design delivered within the Australian context, this study was the first to assess whether earlier efficacy trials could be replicated in a setting with effectiveness features (Greene et al., 2004; Ollendick et al., 2016). Findings can be generalized to clinical patients in routine care with greater confidence by including real-world characteristics in the study design such as clinically referred youth, therapists employed by the clinic, and treatment delivered in a service-oriented setting.

Phase 1 results demonstrated support for Hypothesis 1 - on assessor-rated structured interviews and ratings (ADIS; CGI-S; CGI-I) and parent-rated symptom checklists (DBDRS) - that CPS and PMT, when delivered in a community clinic that incorporates real-world features, are equally effective treatments for youth with ODD. That is, a statistically significant reduction in ODD symptomatology and functioning was observed across all

dependent variables and, with the exception of one assessment measure (CGI-S), no differences were observed between the PMT and CPS conditions at post-treatment. On average, participants in the PMT and CPS groups improved to near the clinical remission cut-off for ODD, having initially started treatment in the 'markedly disturbed' category on the ADIS. Clinically meaningful improvement was also observed for both treatments on the CGI-S, as participants were found to shift from a baseline of 'markedly ill' to 'mildly ill' at posttreatment. Correspondingly, the clinician-rated global improvement scale (CGI-I) findings indicated that two-thirds of youth were 'much or very much' improved following both treatments. Another important indicator of the clinical significance of treatment effects is the magnitude of the effect size in each of our active treatment groups. Our study showed that treatment effect sizes achieved by CPS and PMT for improving oppositional symptoms were large on all three measures at posttreatment (ADIS CSR: PMT g = 1.89; CPS g = 1.68) and follow-up (PMT g = 1.83; CPS g = 1.91). The large effect sizes observed underline the practical significance of both CPS and PMT treatments. Moreover, group equivalency tests conducted on the ADIS and DBDRS results showed that CPS and PMT treatment outcomes were comparable, with no practically meaningful differences observed between treatments. Indeed, on all measures of clinical significance, a large proportion of youth with ODD experienced meaningful improvement.

Consistent with our second hypothesis, youth in the CPS condition maintained improvements in ODD symptoms at levels comparable to those in the PMT condition up to the 6-month follow-up. Close to half of the ODD youth in this study were diagnosis-free at 6-month follow-up (CPS = 45%; PMT = 52%). In addition to demonstrating the stability of CPS results over time, this study also tested the transportability of this novel treatment. Conducted in Australia, this research supports the transportability of CPS outside of the U.S. where the original efficacy studies were undertaken. Thus, results from Phase 1 of this study

reinforce earlier findings (Greene et al., 2004; Ollendick et al., 2016), which demonstrated that CPS is as effective as the well-established PMT, further extending these conclusions to a real-world community setting outside of the U.S.

While the overall results were generally equivalent across groups, one statistically significant difference favored PMT: participants in the PMT condition showed greater improvement than those in the CPS condition between pre- and post-treatment on the Clinical Global Impressions - Severity scale (CGI-S), a clinician-rated measure of global impairment. This finding may reflect not only the magnitude but also the nature of the improvements associated with PMT. Specifically, it is possible that PMT's impact extended beyond ODD symptoms to comorbid difficulties, particularly ADHD symptoms such as impulsivity. This explanation is plausible given that Barkley's (1997) PMT protocol was developed specifically for children with comorbid ODD and ADHD, and ADHD was highly prevalent in the current sample.

The CGI-S assesses severity at two time points (pre and post), which may reduce retrospective bias compared to the post-only Clinical Global Impressions - Improvement scale (CGI-I). Notably, the CGI-I did not reflect this same pattern and showed no statistically significant difference between treatment groups. This discrepancy suggests that the CGI-S result should be interpreted cautiously, and raises the possibility that the CGI-S may have been more sensitive to change in broader functional impairments commonly associated with ADHD. Although this finding was not hypothesized, it warrants further investigation and may indicate an area of relative strength for PMT in treating youth with complex or comorbid presentations. Future research should explore this differential effect and clarify whether it generalizes across settings or subgroups.

Phase 1 of this study also examined whether attrition rates for the two active treatment conditions were comparable, which is relevant given the importance of attrition as a

necessary condition for program engagement. Consistent with Hypothesis 3, attrition was shown to be moderately high across both treatments in this study; 18% of the combined participants dropped out before post-assessment, and this figure increased to 29% at follow-up. Altogether, eighteen families (11%) dropped out after enrolment and before treatment started, and a further 11 families dropped out after starting treatment but before completing the post-intervention assessment (7%). In CPS specifically, 10% of families *(n* = 8) dropped out after enrolment and before starting treatment, and another 10% dropped out after treatment commenced and before post-assessment (*n* = 8). As hypothesized, although attrition was moderately high, no significant differences emerged between the CPS and PMT conditions at post-treatment or follow-up. These results suggest that attrition is similarly problematic in both CPS and PMT. The possibilities for addressing this high dropout rate will be explored further in the future directions section of this Discussion.

As a secondary analysis, Phase 1 also examined the long-held assumption that efficacy studies conducted in 'ivory towers' have superior treatment outcomes that might not be replicated in real-world research. This is believed to be the case because RCTs typically involve fewer complex clients and are conducted by highly trained, specialized clinicians who face fewer competing demands than those working in service settings (see Michelsen et al., 2013 for discussion). This belief led Chambless and Hollon to recommend that effectiveness studies accompany efficacy studies, as findings have greater validity when replicated in designs that reflect real-world conditions (Chambless & Hollon, 1998). This study compared the treatment outcomes associated with effectiveness and efficacy features (Exploratory Inquiry 1). Specifically, we examined outcomes associated with community versus clinical referral and experienced therapists employed by the clinic versus graduate interns. Results of Phase 1 showed that no differences were observed in the treatment outcomes associated with efficacy and effectiveness features. Altogether, these results

challenge the assumption that findings from efficacy research do not translate to real-world community settings.

Phase 2 findings

Phase 2 of this study set out to provide a complementary perspective to Phase 1 by assessing the social validity of CPS treatment drawn directly from the parent(s) perspective. While Phase 1 relied on symptom-based measures to show that CPS and PMT were effective in treating youth with ODD, Phase 2 evaluated the social significance of treatment by assessing treatment acceptability from the subjective viewpoint of the parent(s) (Exploratory Inquiry 2). This study was the first to capture whether parent(s) viewed CPS as fair, reasonable, appropriate, and in line with family expectations. Evaluating treatment acceptability is crucial, as it informs clinicians' treatment selection and influences retention and adherence, both of which are particularly important for this population.

Results showed that parents in the CPS group viewed treatment as highly acceptable across all measures (i.e., acceptability, satisfaction, relevance, treatment demands, and alliance), at rates similar to the well-regarded PMT. While both treatments were highly acceptable, PMT demonstrated a slight but statistically significant superiority in satisfaction, adherence, and perceived treatment relevance and demands. Whether this small mean difference between CPS and PMT (e.g., on the satisfaction scale, the CPS mean at post-intervention is 40.92/55 compared to 43.23/55 on the PMT scale) is clinically significant is a question that will be considered carefully in the following section.

Integration of Findings into Existing Literature: Phase 1

As presented in the previous section, in line with the primary research hypothesis, Phase 1 of this study replicated the findings of Ollendick et al.'s earlier RCT, which demonstrated that CPS is as effective as the gold standard treatment, PMT, in reducing ODD

symptomatology and achieving clinically significant improvements in youth aged 7-14 years (2016). Moreover, Phase 1 built on earlier efficacy studies (Greene et al., 2004; Ollendick et al., 2016), utilizing a hybrid design to maximize external validity, allowing the findings to be generalized to real-world settings. While the literature on PMT is extensive, demonstrating widespread support across efficacy and effectiveness research for treating youth with disruptive behavior disorders, research on CPS remains in its early stages (Brestan & Eyberg, 1998; Eyberg et al., 2008; Kaminski & Claussen, 2017). This was the first CPS study to replicate earlier RCTs (Greene et al., 2004; Ollendick et al., 2016) and demonstrate the comparative effectiveness of CPS with PMT, building on efficacy research by adopting a hybrid design with features that approximate routine clinical practice.

Interestingly, results from Phase 1 closely mirrored those of the study it aimed to replicate (Ollendick et al., 2016), showing both statistical and clinical improvement in ODD symptomatology, as well as global improvement across the active treatment conditions (Ollendick et al., 2016). Specifically, CPS in both studies demonstrated large within-group effect sizes across all measures, with the average participant improving from 'markedly ill' at the start of treatment to 'mildly ill' at post-treatment. Furthermore, two-thirds of youth were rated as 'much or very much' improved post-treatment, with ODD remission rates around 50%. Notably, across both studies, all measures - except one - showed equivalent outcomes for CPS and PMT conditions, suggesting near-consistent support for CPS performing as well as the gold standard PMT for youth with ODD (Murrihy et al., 2023; Ollendick et al., 2016).

Taken together, Ollendick et al.'s (2016) RCT and Phase 1's hybrid design, represent complementary research designs that contribute considerably to the emerging literature on CPS. Both studies drew upon notably large sample sizes (Ollendick et al. 2016: 134 families and Phase 1:160 families); utilized near-identical robust psychometric measures (i.e., semi-structured interviews, self-report, and clinician rating scales); approached evaluation from

multiple perspectives; assessed treatment fidelity; and notably included follow-up assessment over time.

Further support for these findings, showing that CPS performs equally well as PMT, comes from Greene et al.'s RCT, which compared treatments delivered to 47 families at a university hospital (2004). Greene et al. (2004) found large within-group effect sizes at treatment completion and no differences between PMT and CPS on measures of ODD symptomatology, the quality of parent-child interactions, and parental competence. Altogether, Phase 1's replication of efficacy trials by Ollendick et al. (2016) and Greene et al. (2004) strengthens the conclusion that CPS is equivalent to the gold-standard PMT for treating youth with ODD, demonstrating its effectiveness in real-world settings outside the US. This research is promising in terms of expanding treatment options for families and is particularly noteworthy given the different theoretical rationales behind the two therapeutic approaches. Possible reasons for the similar results observed with PMT and CPS will be discussed shortly, along with the future steps needed to validate CPS as an evidence-based treatment for diverse populations.

Generalizability to real-world settings

This is the first study to confirm that the causal inferences drawn from earlier CPS efficacy trials generalize to routine practice settings, involving complex clients and clinicians employed by the clinic (Greene et al., 2004; Ollendick et al., 2016). At the same time, while the transportability of PMT has been extensively demonstrated across culturally and linguistically diverse populations with only minor adaptations required (Sanders, 2023; Turner et al., 2020; Valero-Aguayo et al., 2021), this study is also the first to show that CPS is effective for youth with ODD outside of the U.S.

As mentioned earlier, despite the addition of effectiveness features to Phase 1's hybrid experimental design, results were still remarkably close to those of the original Ollendick et al. RCT (2016). This similarity between the treatment outcomes across both efficacy and hybrid studies is striking because of longstanding concerns in the literature that treatments tested under tightly controlled conditions (i.e., efficacy studies) may not generalize to the same outcomes when delivered in regular practice with complex clients, less specialized therapists, inconsistent attendance, and competing service demands (Hunsley & Lee, 2007; Weisz et al., 2013; Westen, Novotny, & Thompson-Brenner, 2004). Indeed, research has provided some support for this view that clients in 'usual care' have more complex needs and problematic parental and familial factors than those in efficacy research (Baker-Ericzén et al., 2010).

The belief that outcomes from efficacy trials do not reflect the real-world conditions of community clinics is a salient one because it represents a common reason why therapists reject the use of evidence-based therapies creating a barrier to their widespread adoption (Addis, Wade, & Hughes, 1999). Two meta-analyses by Weisz and colleagues support this oft-held assumption, showing that results in efficacy trials do not necessarily translate to the same outcomes in real-world conditions. They demonstrated that when evidence-based psychotherapies for behavioral problems are compared to usual care, the former have better outcomes (Weisz, Jensen-Doss, & Hawley, 2006; Weisz et al., 2013). However, these trials are limited by the lack of clarity regarding which psychotherapy treatments are being delivered in usual care (e.g., in some cases, only case management), meaning the treatments being compared across settings may not be the same.

In contrast, other reviews have directly compared efficacy versus effectiveness studies using evidence-based parenting programs, primarily PMT, for child and adolescent disorders. When benchmarked against PMT efficacy studies, these reviews of effectiveness studies

found comparable treatment outcomes and rates of completion across efficacy and effectiveness studies (Hunsley & Lee, 2007; Lee, Horvath, & Hunsley, 2013). Further to this, a review by Michelsen et al. (2013) grouped PMT studies according to the number of real-world practice criteria (i.e., effectiveness features), ranging from 0-4 (e.g., non-specialist or specialist therapists; clinic or study-referred population), and reported that the degree to which trials included real-life practice criteria had no discernible impact on effect sizes.

In sum, the absence of any discernible difference between the Phase 1 results and those of Ollendick et al.'s (2016) efficacy trial aligns with these findings from major reviews (Hunsley & Lee, 2007; Lee et al., 2013; Michelsen et al., 2013) and challenges the notion that results from 'ivory tower' research cannot be closely replicated in real-world settings. Instead, these findings suggest that treatment outcomes observed in efficacy studies can generalize to routine clinical practice, even across geographical boundaries. Moreover, a direct comparison of treatment outcomes within Phase 1 associated with efficacy and effectiveness features showed no differences between the two groups. Overall, these findings should help address skepticism around the transferability of results from efficacy studies to regular practice, while also reassuring clinicians of the effectiveness of CPS in real-world settings (Hunsley & Lee, 2007; Lee et al., 2013).

Remission rates

As hypothesized (Hypothesis 1), treatment remission rates for youth with ODD were similar in both active treatment conditions, averaging approximately 45-52%. Specifically, six months following treatment, 52% of youth in the PMT group and 45% of the CPS group were in remission from ODD, with no statistical differences evident between the groups. Whilst these remission rates demonstrate room for improvement, it is important to contextualize these findings as both treatments result in substantial improvement in youth

with ODD. In sum, on all measures of clinical significance in Phase 1, including large effect sizes, global improvement, and severity ratings, a substantial proportion of youth with ODD experienced meaningful improvement. That said, there is still considerable scope for improving treatment outcomes for youth presenting with ODD, particularly in bringing approximately 50% of clinically affected youth into the normative range.

To establish a baseline for the level of diagnostic remission reported for existing treatments for youth with challenging behaviors, the literature on PMT can be examined. Interestingly, despite the extensive body of research on PMT, data on remission rates and clinical significance are less comprehensive than might be expected (Lee et al., 2013; Hunsley & Lee, 2007). Two literature reviews examining PMT treatment have highlighted that, unlike the anxiety and depression literature which routinely includes metrics for clinically significant change, research on behavior disorders typically does not. Lee et al. (2013) report: "It is the exception rather than the rule for an article to indicate the percentage of youth who show clinically significant improvements" (p. 86; Hunsley & Lee, 2007). Nonetheless, there are still a considerable number of PMT treatment studies that align with the diagnostic remission rates shown in Phase 1. These reviews concur that the diagnostic remission associated with current treatments is less than optimal, underlining that nearly a third to half of youth with ODD still exhibit symptoms above the clinical diagnostic threshold following PMT treatment (Niec et al., 2016; Ollendick et al., 2016; Scott, 2005; Webster-Stratton, 1990).

Remission rates for PMT leave much scope for improvement and prompt the question of how an alternative treatment, like CPS, may compare. Three studies to date - including Phase 1 - have examined diagnostic remission following CPS treatment for youth with ODD. Ollendick et al.'s trial (2016), and Phase 1 of this study examined remission in CPS, reporting remarkably similar diagnostic recovery rates at 6-month follow-up, citing 46% and 45%,

respectively. Similarly, in Greene et al.'s study (2004), 46% of children in the CPS condition showed clinically significant improvement in ODD symptoms post-intervention, increasing to 60% at 4-month follow-up. No significant differences in diagnostic remission between CPS and PMT conditions were observed across all three studies. In short, conclusions about diagnostic recovery rates associated with CPS are tentative, and more research needs to be conducted to understand them. However, to this point, research suggests that CPS findings are similar to PMT: approximately half the youth with ODD move from the clinical to the non-clinical range following treatment.

In summary, while both CPS and PMT treatments are effective in improving ODD (Greene & Winkler, 2019; Ollendick et al., 2016), there is still considerable scope for improvement (Greene et al., 2004; Murrihy et al., 2023; Ollendick et al., 2016). This study cannot determine whether the same group of participants would have recovered from ODD regardless of treatment or whether PMT and CPS treatments benefit different families. Understanding the specific details of 'what works, for whom, and under what conditions' will require examining predictors, moderators, and mediators. Future directions for enhancing this understanding will be explored in more depth in the final sections of this discussion.

Maintaining gains over time

A crucial qualitative distinction exists between an active intervention phase, in which families receive guidance and support from clinicians to modify their parenting practices, and the maintenance phase following treatment, wherein families must continue these strategies without prompting and professional help (Van Aar et al., 2017). Understanding the symptom trajectory that occurs after treatment is completed, whether treatment gains sustain, fade out, or improve over time, and which factors play a role in sustaining gains, is crucial in psychological treatment.

Phase 1 investigated the course of ODD symptoms following CPS treatment and found that initial reductions in youth externalizing problems were maintained up until the 6-month follow-up (Hypothesis 2). These findings were equivalent to those observed in the PMT condition. Before examining the existing literature on CPS, it is timely to revisit an earlier discussion about the durability of gains following PMT treatment (see page 50). This will provide a baseline for comparison when considering the maintenance of gains in alternative treatments such as CPS. There have been conflicting findings in the PMT literature regarding whether initial reductions in child behavior problems observed at post-intervention are sustained or fade over time (Backhaus et al., 2023; Bailey et al., 2020; Lundahl et al., 2006). However, the findings from Phase 1 lend support to growing evidence in the PMT literature that gains are fully sustained for at least six months and even over the medium and longer-term (Hood & Eyberg, 2003; Ollendick et al., 2016; Van Aar et al., 2017; Webster-Stratton et al., 2011). In a major review, Van Aar and colleagues (2017) investigated 43 RCTs to examine whether parenting interventions (mostly PMT) resulted in gains that were maintained, diminished (i.e., fade-out effects), or even improved (i.e., sleeper effects) between post-treatment and 3-year follow-up. They found that the initial impact of parenting interventions was maintained in a stable manner for up to three years after treatment completion. However, it is noted that this study was constrained by heterogeneity, and a small number of studies did demonstrate fade-out or sleeper effects (Van Aar et al., 2017).

Returning to the CPS literature, and the comparative maintenance of treatment gains over time, three studies (including Phase 1) are available for evaluation. These studies compared the two active conditions, PMT and CPS, and assessed whether gains at post-treatment were sustained at 4-6 months duration (Greene et al., 2004; Ollendick et al., 2016; Murrihy et al., 2023). Findings were uniform across these trials: reductions in ODD symptoms following CPS treatment were maintained over 4-6 months, and these outcomes

were comparable to the PMT condition. The results of these CPS studies, which demonstrated sustained gains after CPS treatment, are promising but would benefit from further replication with an extended follow-up period.

Although studies have shown that gains resulting from CPS and PMT treatment are durable, researchers are yet to understand the theoretical underpinnings of behavior maintenance and which factors associated with CPS and PMT are essential for maintaining gains over time (Kwasnicka et al., 2016). Historically, it was assumed that factors governing the initiation of behavior change were the same as those that governed behavior maintenance. It is now understood that the two are different, and researchers have only recently focused on constructing a theory to explain behavioral maintenance (Kwasnicka et al., 2016; Rothman, 2000). A recent systematic review by Kwasnicka et al. (2016) sought to synthesize the current theoretical explanations for change maintenance to guide the development and evaluation of a theory of behavior maintenance and, ultimately, programs that sustain change (for an in-depth discussion of theoretical models related to themes, see Kwasnicka et al., 2016). Drawing from this review, we can see that PMT and CPS incorporate five of these themes, which may partly explain the durability of gains over time.

Identifying themes important for maintaining change helps recognize factors already integrated into existing programs and highlights what could be added to improve the durability of future interventions. First, to maintain gains once active treatment is complete, a person must have adequate internal physical and psychological resources to overcome difficulties (e.g., Baumeister's self-control theory). Second, Kwasnicka et al. (2016) emphasize that families need a supportive social context and environment to achieve their goals, or at least one that does not pose barriers (e.g., Bandura's Social Learning Theory). Third, parents must possess the ability to self-regulate by managing automatic responses, emotions, and desires to engage in goal-directed behavior (e.g., self-regulation theory). In this

context, clinicians delivering CPS and PMT treatments, to varying degrees, ensure that parents have adequate internal resources, social support in their environment, and the ability to self-regulate. For example, early in PMT treatment (and ongoingly as barriers arise), clinicians engage in an in-depth discussion with parents about their physical and emotional health, as well as any family problems (e.g., marital problems, financial problems, conflict with friends, alcohol abuse) they might be experiencing (Barkley, 1997). A structured discussion of 'proposed solutions' accompanies this identification of stressors. This treatment component assists in identifying contextual factors, internal resources, and social supports that may impact treatment and maintenance after treatment concludes. A lighter touch intervention in PMT might be to suggest a referral to another specialist for skills training in self-regulation to assist PMT treatment. In contrast, CPS evaluates 'therapy-interfering behaviors' throughout the therapy process, such as marital discord or self-regulation difficulties, and acts to solve these barriers via a referral or a brief session, called a 'Type X session', so that they no longer interfere with therapy.

Fourth, habit theory suggests that sustaining behavior change is most successful in people who develop habitual cue responses to maintain the new behaviors while removing the cues for unhelpful habits (i.e., utilizing stimulus control). In CPS, when challenging behavior occurs (the cue), parents learn to replace unhelpful responses - such as assuming they know why the child is misbehaving and imposing a consequence - by asking the child what is causing the behavior. Each time a challenging behavior occurs, this new approach is practiced until it becomes the habitual response. Habitual cue responses are also actively coached within PMT sessions, typically with the child present. A parent whose child regularly disrupts them while on the phone may modify their usual reaction by consistently using labeled praise when the child stays engaged in their usual activities and does not interrupt the

call. This use of positive parenting techniques in relation to a specified cue is routinely practiced until it becomes the habitual response.

Lastly, Rothman's model of behavior maintenance is the fifth and final theme which emphasizes the role of "motivation motives" in sustaining behavior change (2000, p. 282). Rothman (2000) posits that if a person is satisfied with the behavioral change they have adopted, this will boost their motivation to continue. Returning to the previous example, when the parent attends to the child's independent play and the child refrains from disrupting the call, this reinforces the parent's behavior, increasing the likelihood that it will be repeated (Barkley, 1997).

In sum, Phase 1 results contribute to the CPS literature on the durability of treatment outcomes, showing that gains are fully maintained for up to 4-6 months after treatment. These are promising findings, but further testing over the medium to long-term is needed. This research should be complemented by studies that explicitly test theories of behavior maintenance to better understand the factors involved and refine future program development (to be discussed shortly).

Attrition (Phase 1 and Phase 2)

High rates of dropout that prevent engagement and adherence to treatment constitute a significant problem in the realm of disruptive behavior disorders (Fernandez & Eyberg, 2009). In addition to compromising treatment, high attrition also impacts research by confounding randomization and lowering statistical power (Kazdin, 1990). To contextualize Phase 1's CPS findings, it is useful to first examine typical attrition rates for PMT, beginning with a review by Chacko and colleagues (2016). Chacko et al.'s (2016) review of youth engagement across 181 PMT studies revealed significant dropout rates, with a total of 51% of participants disengaging from the study. Half of the participants dropped out before treatment

began, while the other half dropped out after treatment commenced. Significant variation across studies was noted, with some studies reporting no attrition and, at the other end of the spectrum, 10% of studies had more than half of the sample dropout. Despite an ongoing emphasis in the literature on the importance of reporting engagement, almost 30% of studies still did not report attrition. Moreover, the definition of attrition varies widely, which continues to make cross-study comparisons problematic (Chacko et al., 2016). Overall, results from Phase 1, along with findings from other studies, highlight concerningly high rates of attrition from PMT among families dealing with conduct problems, many of whom would likely have benefited from completing an evidence-based parenting intervention (Chacko et al., 2016; Niec et al., 2016; Ollendick et al., 2016)

While the existing literature has established attrition as a significant barrier to the successful uptake of PMT treatment, it is still being investigated whether CPS faces similar challenges. Phase 1 addressed this lacuna by comparing family attrition rates associated with CPS treatment and those associated with PMT treatment. Results showed that youth with ODD who were randomized to CPS treatment had moderately high dropout rates, equivalent to those observed in the PMT group. Rates for treatment dropout were relatively high at 18% for both active treatment groups at post-treatment, and 29% at follow-up assessment, with neither group offering an advantage over the other.

At first glance, the attrition in this study appeared to be much lower than that reported in Ollendick et al.'s RCT (2016), which found that 33% of families dropped out at the post-intervention assessment. However, closer inspection of these figures revealed that Ollendick et al. had an unusually high number of families dropout between treatment completion and post-intervention assessment. When these families are excluded, the attrition rates for the current study align more closely with those reported in Ollendick et al.'s RCT (2016), which noted a 20% dropout rate at post-treatment, with no significant differences observed between

the two treatments. It is interesting to note that attrition rates in an efficacy trial (Ollendick et al., 2016) and a hybrid study with effectiveness features (Phase 1) were comparable. This finding challenges the previously discussed assumption that clients and service delivery in efficacy studies are markedly different from routine practice (Baker-Ericzén et al., 2010; Hunsley & Lee, 2007; Weisz et al., 2013). In sum, although the limited number of CPS studies tempers conclusions, preliminary research suggests that in line with Hypothesis 3, the attrition issues that afflict PMT treatment are also present in CPS. Furthermore, there is no clear advantage in selecting one treatment over the other to reduce dropout rates. These results emphasize that a better understanding of attrition, related to parenting interventions for ODD, should remain firmly on the research agenda.

Considering what variables might be implicated in these moderately high dropout rates for both CPS and PMT is relevant here. Whilst a relatively large amount of research has been undertaken on factors related to attrition, the scope of research is wide, and results have often been mixed, resulting in few solid conclusions being reached (Fernandez & Eyberg, 2009; Kazdin, 1990; Lavigne et al., 2010; Prinz & Miller, 1994; Werba et al., 2006). It is possible that similar factors that influence attrition including child barriers (e.g., severity of illness), family barriers (e.g., SES, family adversity), situational barriers (e.g., difficulty making appointments times or location), pre-treatment parental attributions and expectations (e.g., attributions about the cause of the problem and treatment expectancies) and ongoing acceptability and satisfaction, are at play across both active treatments (Fernandez & Eyberg, 2009; Miller & Prinz, 2003).

Both Phase 1 and Phase 2 sought to contribute to the attrition literature from different vantage points. Phase 1 contributed to the existing literature by examining variables that increase the risk of dropout, specifically exploring sociodemographic differences between treatment completers and non-completers to identify attrition-related factors that may be

addressed through preventative interventions. In contrast, Phase 2 focused on factors associated with attrition related to the family's ongoing subjective experience with the treatment, which falls under the umbrella of treatment acceptability. The acceptability of treatment is a dynamic concept that can determined before, during, or after treatment (Prinz & Miller, 1994). The treatment acceptability of CPS, compared to PMT, was evaluated in Phase 2 and will be discussed in the following section.

Notably, Phase 1 analyses showed no difference between treatment completers and non-completers on a range of pre-treatment variables, including but not limited to, SES, severity of ODD, age, ethnicity, family structure, and parent education. Starting with SES, it is noted that although some studies agreed with Phase 1 outcomes (Dumas, Nissley-Tsiopinis, & Moreland, 2007; Ollendick et al., 2016, Werba et al., 2006), the majority of research (PMT-based) has concluded that financial disadvantage is related to dropout (see Chacko et al., 2016 and Reyno & McGrath, 2006, for reviews; Fernandez & Eyberg, 2009; Kazdin, 1990; Lavigne et al., 2010; Leijten et al., 2013; Prinz & Miller, 1994). These conflicting findings regarding SES and dropout may be explained by the fact that SES is a proxy construct for many potential barriers that can create problems with accessing treatment (Fernandez & Eyberg, 2009).

Moreover, while the severity of child conduct problems was not found to be associated with dropout in Phase 1, or in Ollendick et al.'s RCT (2016), some studies have found that the severity of conduct problems does play a role in attrition (Kazdin, 1990; Prinz & Miller, 1994). One possible explanation for the Phase 1 finding is the uniformly high severity of ODD symptoms among all research participants. Specifically, conduct problems were high in both completers and non-completers in Phase 1, which left little room for comparison with less severe cases. Lastly, the lack of findings in Phase 1 regarding differences in demographic variables - such as the child's age, ethnicity, family structure, and

parent education - between completers and non-completers adds to the conflicting literature on these variables (Kazdin, Mazurick, & Bass, 1992; Lavigne et al., 2010; Prinz & Miller, 1994; Ollendick et al., 2016; Werba et al., 2006). It is unclear why these results are mixed, and further research is needed to unravel which variables are related to dropout.

In summary, the results suggest that dropout rates for CPS treatment are similar to those for PMT in youth with ODD. The attrition rates for both treatments are unacceptably high, warranting urgent research attention to ensure families in need can benefit from evidence-based treatments. Practically speaking, these results suggest that there is no advantage in choosing one treatment over the other in relation to dropout. Although Phase 1 did not identify any pre-treatment characteristics (e.g., sociodemographic, parent, or child factors) that might flag potential non-completers, earlier research has identified several variables related to attrition, the strongest of which is SES. Possible interventions to target those families at risk of dropout after enrollment and before treatment starts, and once treatment has commenced, will be addressed further in the clinical implications section.

Integration of Findings into Existing Literature: Phase 2

CPS and treatment acceptability

Phase 2 complemented Phase 1's investigation of child and family characteristics associated with attrition, this time focusing on another risk factor for dropout, treatment acceptability. Returning to our exploratory research question, which considered whether acceptability in CPS is comparable with the well-regarded PMT, the results of Phase 2 are consistent with the limited existing research (Mulraney et al., 2022; Ollendick et al., 2016), demonstrating high acceptability for CPS across multiple measures. Moreover, no differences were observed between CPS and PMT groups on treatment acceptability (PEI) or therapist alliance (BTPS). However, a small but statistically significant difference favoring PMT was

found in treatment adherence, satisfaction, perceived relevance, and demands associated with treatment. Of note, the minimal size of this mean difference raises questions about whether the statistical significance translates into clinical significance.

Mulraney et al. (2022) conducted a small pilot trial comparing CPS to usual care for treating irritability, examining treatment acceptability through measures of enrollment, dropout, session attendance, and an ad hoc questionnaire assessing feasibility and acceptability from the parent's perspective. Results indicated that retention and adherence were good, families found CPS extremely useful, and all participants recommended the program. That said, it is cautioned that these results were drawn from a small sample and can be considered tentative at best (Mulraney et al., 2022). In addition, Ollendick et al.'s RCT (2016) examined one component of acceptability, treatment satisfaction, and revealed similar positive results for CPS and PMT conditions. Altogether, early research into the acceptability of CPS treatment has tentatively suggested that parents are highly accepting of the treatment.

This current study also lends support to the existing PMT literature, which shows that PMT and its various adaptations are highly accepted treatments (Abrahamse et al., 2018; Arkan et al., 2020; Comer et al., 2017; Diaz-Stransky et al., 2020; Fefer et al., 2022; Kohlhoff et al., 2020; Niec et al., 2016). However, it is important to note that research into treatment acceptability is generally limited by methodological shortcomings for both PMT and CPS. Treatment acceptability research has been constrained by varying operationalizations of the construct, which are inconsistent and rely on measures of varying quality (Canning et al., 2023; Kazdin, 2000).

To better understand factors common to CPS and PMT that might explain why acceptability is high in both treatments, we can draw from Sekhon et al.'s empirically-based framework of intervention characteristics associated with high treatment acceptability levels (2017). First, understanding the intervention and how it works is one of the features identified

by the framework as being related to better treatment acceptability (Sekhon et al., 2017). Parents in both PMT and CPS conditions reported a good understanding of the treatment and its mechanisms, which may be attributed to the dedicated psychoeducation components that helped families to understand the treatment model and process. A second characteristic of an intervention that improves treatment acceptability is increasing a participant's confidence in their skills and self-efficacy (Sekhon et al., 2017). Both CPS and PMT parents in this study reported improvement in skills on the PEI, likely due to active skills training that incorporated modeling, role-play, rehearsal, and feedback. A third characteristic of an intervention with higher acceptability is that the burden related to treatment is not too high, and the benefits outweigh the costs. Parents in both active treatments reported this, suggesting that the time and workload required for PMT and CPS treatments were perceived as reasonable and aligned with expectations. This finding might be expected given the same treatment dosage and homework expectations in PMT and CPS treatments. In summary, both PMT and CPS shared features such as clear explanations of the treatment content and process, a focus on building skills and self-efficacy, and reasonable demands on family resources, all of which are thought to contribute to higher acceptability.

Kazdin's barriers to treatment participation model (BTPM) also offers insight into the similarly high acceptability ratings reported for both treatments. The BTPM suggests that the more barriers parents face, the less acceptable they will find the treatment (Kazdin, Holland, & Crowley, 1997). Specifically, if parents find treatment is not relevant for their family, or too demanding (logistically or the demands of treatment itself), or there is incompatibility with the therapist, there will be lower treatment acceptability (Canning et al., 2023; Kazdin et al., 1997a, 1997b). Predictor research has shown support for barriers to treatment participation predicting poor treatment response (see Reyno & McGrath, 2006 for review). Although not a direct test of this theoretical model, Phase 2 of this study showed tentative

support for the theory underlying the BTPM: PMT and CPS demonstrated low barriers to treatment, and treatments were considered highly acceptable by parents. Future research, however, needs to investigate the direct association between the two variables.

While the acceptability of PMT and CPS treatment was very high overall, PMT did distinguish itself from CPS on several measures. The small but statistically significant mean difference found on measures of perceived treatment relevance and demands, adherence, and satisfaction was unexpected, and the reason for this can only be speculated. For CPS to succeed, the child must adopt an active role in problem-solving. If the child struggles to engage in this process, this may create uncertainty and a perceived lack of control in the parent, which could impact treatment acceptability. Similar issues may also exist from the therapists' perspective. Although CPS treatment has guidelines on steps therapists must follow, the program is generally less prescriptive than PMT. Child engagement is required, and therapists must draw upon new skills with diverse presentations and tolerate any associated unpredictability and uncertainty. This is especially relevant given that therapists in this trial had no previous experience with CPS. For example, if a child has problems with lagging skills, such as difficulty expressing concerns, needs, or thoughts verbally, it can affect their ability to engage in the problem-solving process and increase the pressure on the therapist to develop strategies to support the child to express their concerns. This challenge may directly impact the confidence of the therapist, especially a therapist new to CPS, who must deal with the uncertainty of 'thinking on their feet' in front of the parent(s). Furthermore, research has shown that if therapists are anxious about what they are doing (i.e., prospective anxiety), this can result in the adoption of safety behaviors such as avoiding pushing for change or using specific techniques that they anticipate will not distress the family (Brown, Mountford, & Waller, 2013; Meyer et al., 2014; Turner et al., 2014; Waller, Stringer, & Meyer, 2012). Thus, anxiety arising from uncertainty in treatment has been shown to result in

several changes in therapist behavior, any of which might be interpreted by parents as a lack of therapist competence, which, in turn, may lower their perception of treatment acceptability.

Overall, CPS was found to be a highly acceptable treatment, with acceptability levels comparable to PMT, which is crucial as treatment acceptability broadly reflects discontent and retention risk. Before a family reduces their engagement or drops out of treatment, they may have decided that treatment is unacceptable due to the many barriers it poses or because of the 'lack of fit'' to their family (Kazdin, 1990; Sekhon, Cartwright, & Francis, 2017, 2022). Therefore, treatment acceptability is an umbrella term that captures how demanding and relevant parents perceive the treatment to be for their family (Canning et al., 2023; Kazdin et al., 1997a, 1997b). In short, assessing a family's perception of treatment acceptability can be an essential screening tool for identifying imminent dropouts and enabling action to prevent this. Also, gaining a better understanding of the acceptability of treatment, particularly in comparison to other available treatments, is vital for differentiating treatments and guiding therapists and parents in treatment selection.

Strengths of Project

The strength of this RcT includes a large sample size (N = 160) enabling greater power to detect effects and reduce margins of error, acceptable inter-rater reliability, adequate treatment adherence, highly trained and closely supervised clinicians, and a comprehensive and varied approach to measurement. A further strength of the project was the structured interviews conducted by independent assessors, along with parent-reported and clinician-rated questionnaires using psychometrically validated instruments to collect data on symptom reduction, diagnostic remission, social validity, and global assessment of functioning. The major advantages to this RcT design - randomized comparison of active treatments,

assessment of the stability of treatment gains, inclusion of effectiveness features and social validity measures, and evaluating retention - are outlined in greater detail below.

Randomized comparison of active treatments

In their review of evidence-based parenting programs for disruptive behavior disorders, Eyberg et al. (2008) highlighted the value of designing outcome research that directly compares two active treatments. By comparing CPS to a treatment like PMT, which has been extensively validated in the literature and shown to be effective, it serves as an important benchmark for gauging the relative efficacy of an alternative treatment (Eyberg et al., 2008). This is useful information for policymakers, clinicians, and consumers alike. In addition, this comparison of active treatments controls for patient expectancy effects because families from both groups expect to receive a beneficial intervention (Boot et al., 2013). This is contrasted to non-active placebos where one group's hopeful expectations might potentially skew results. Hence, this randomized comparison design constitutes a strength because, in addition to testing the relative efficacy of the two treatments, it also helps to separate the effects of the treatment itself from the improvement that arises from the hope that the treatment will work (Eyberg et al., 2008). If study results distinguish between treatments (e.g., PMT demonstrating superior outcomes compared to CPS), this offers a working hypotheses regarding which underlying models (e.g., behaviorism vs. relationship-based approaches) are likely to be more effective. Conversely, if outcomes are found to be equivalent between treatments, as was the case in this study, it allows researchers to explore common components or specific mechanisms that may be related to efficacy in both treatments. Importantly, designing this study to compare CPS to a well-established treatment provides families and clinicians with information about relative efficacy that can be used to guide treatment selection.

Stability of treatment gains

Gaining a better understanding of the medium to long-term impacts of parent training for the treatment of youth with ODD, in particular, whether treatment gains improve, sustain, or diminish over time, is essential (Van Aar et al., 2017). To date, research findings disagree as to whether improvements from PMT treatments are maintained over time (Backhaus et al., 2023; Lundahl et al., 2006; Van Aar et al., 2017). While some studies have suggested that reductions in symptomatology observed at post-intervention were initially maintained but gradually diminished over time (Backhaus et al., 2023; Lundahl et al., 2006), a growing body of evidence indicates stable outcomes over the medium to long term (Hood & Eyberg, 2003; Van Aar et al., 2017; Webster-Stratton et al., 2011). This emerging trend suggests that studies demonstrating sustained gains are beginning to outweigh those reporting diminishing effects. Therefore, the inclusion of a 6-month follow-up period is another important strength of this study because further research is needed to answer this question, and only two studies thus far have investigated durability in CPS. The results of this study, which found gains to be equally stable in both treatments for up to 6-months, enables further exploration of behavioral maintenance theory and common factors in each treatment that may contribute to the maintenance of gains over time.

Inclusion of effectiveness features

According to prominent researchers, replicating treatment outcomes from landmark RCTs like that of Ollendick et al. (2016), and extending delivery to community-based providers across diverse geographic regions is essential to ensure treatment generalizability and transportability (Eyberg et al., 2008; Tolin et al., 2015). A strength of this study is the incorporation of effectiveness features representative of a real-world setting, including the involvement of experienced clinical psychologists employed by the service (50% of

therapists), a sample in which over half were clinical referrals, and treatment provided in routine clinical practice. Delivering treatment from a community-based service setting in Australia makes the findings more applicable to real-world practice and other locations outside of the U.S. In all, including effectiveness features in this replication research enabled stronger conclusions about generalizing CPS to routine practice settings in geographically diverse locations.

Social validity measures

As discussed earlier, Kazdin (1980a) highlighted that not all treatments are equally acceptable to consumers, a reality with significant ramifications for treatment selection and dropout. This study is advantageous because it is one of the few randomized trials to include measures of social validity, assessing the social significance and acceptability of treatment from the family's perspective (Wolf, 1978). The addition of social validity measures in this study enriches the existing knowledge base by introducing subjective data, thereby strengthening the practical conclusions that can be reached about the acceptability of CPS and PMT treatments - information that may influence treatment selection and prevent dropout.

Evaluating retention

Attrition is a significant issue in behavior disorders because it interferes with engagement in potentially beneficial treatment and confounds randomization, compromising research reliability (Kazdin, 1990). As discussed earlier, Chacko et al. (2016), in their review of youth dropout in PMT studies, underlined that 30% of studies do not report engagement. This non-reporting presents a significant barrier to understanding the prevalence of this problem and clarifying at which stage in the process families are dropping out, allowing for targeted interventions (Fernandez & Eyberg, 2009). A strength of this study was its

investigation of both the comparative dropout rates of PMT and CPS treatments and the stage at which dropout occurred.

Project Limitations

It is important to consider the limitations of the present study. These included relatively high rates of dropout; representativeness of families; replication from an independent team; participant exclusions, and psychometric constraints with regard to the measures of treatment acceptability. These will be discussed below, along with the associated mitigation strategies.

High attrition rates

Failure of some participants to attend post- and follow-up assessments was an anticipated shortcoming of this study and represents a well-documented issue within the associated literature (Kazdin, 2005). In the current study, of the families randomized to treatment, 18% did not attend post-assessment, and 29% did not complete the 6-month follow-up. To mitigate the potential impact to randomization and statistical power (Chacko et al., 2016), rigorous statistical procedures were used to ensure that outcomes were representative of the full sample (Manly & Wells, 2015). Moreover, analyses ensured that those families who completed treatment did not differ from non-completers on baseline variables, thereby indicating group comparability at the study's outset. It should be emphasized that dropout in this population, which occurs both before treatment commences and during treatment, has been recognized as a significant problem in the literature and would benefit from greater research attention to be discussed shortly (Chacko et al., 2016).

Representativeness of the sample

Another limitation may be related to the representativeness of the families enrolled in this study. Two-thirds of the parents in this study had attained university degrees, half earned

over $USD 101,000/annum, and almost half of the young people in this sample attended private schools. However, demographic data reassuringly shows that the study sample's income, education, and schooling levels match typical clientele for a clinic in this region (ABS, 2016). Furthermore, no differences at baseline on income level were observed between the two treatment groups. Also, it is possible that those in the highest bracket would evidence greater change due to fewer social stressors and more available resources (Leijten et al., 2013; Lundahl et al., 2006), however, that was not the case in this study. Specifically, we explored the relationship between income brackets and treatment outcomes, and, barring the CGI-I, there were no differences in treatment outcomes due to income bracket. In addition, although the breakdown of ethnic groups was representative of this area, this represents a region that is predominantly Caucasian and English-speaking, limiting the generalizability of this finding to more diverse populations (Australian Bureau of Statistics, 2023). Although steps were taken to ensure the representativeness of the sample, further research would benefit from examining more socioeconomically and ethnically diverse family groups.

Independent replication

Although this study was not conducted by an independent research team from that of Ollendick et al. (2016), it is important to note that the creator of CPS (RG) provided clinical supervision for this project but was not closely involved in its implementation. Overall, this study marked a significant step in advancing CPS research by demonstrating its transportability to a community-based setting in another country. However, further steps are still required to validate the treatment, particularly as the effectiveness of CPS has yet to be replicated by an independent research team. According to Chambless and Hollon's (1998) criteria, a treatment is considered empirically supported only when two studies are conducted by independent investigative teams. Independent replication by teams separate from those that conducted the original efficacy studies (Greene et al., 2004; Ollendick et al., 2016),

especially by teams other than the program creator of CPS, is the next crucial step. Not only does independent replication help to avoid investigator bias, but it also addresses the possibility that a therapy may not perform as well when removed from the influence and expertise of the program creators (Chambless & Hollon, 1998; Eyberg et al., 2008).

Participant exclusions

This study assessed the effectiveness and acceptability of treatment specifically for ODD, including comorbidities such as ADHD, anxiety, and depression. However, to closely replicate Ollendick et al.'s (2016) study in a real-life setting, it was necessary to ensure that the protocols were identical. Therefore, families with youth who met the criteria for autism spectrum disorder, conduct disorder, developmental delay, high levels of suicidality, or substance abuse were excluded, as these conditions may have different experiences related to the child's complexities. Exploring the efficacy of CPS for challenging behaviors in youth with additional presentations would be valuable, particularly for those with a CD presentation marked by pervasive delinquent behavior. In addition, ASD has garnered attention in the literature regarding ODD, and there is growing interest in CPS as a potential treatment, making it an urgent area for future research (Tschida et al., 2021).

Sample size and statistical power

Although this study was adequately powered to detect medium-sized effects (d = .50) and to allow for anticipated attrition, it was not powered to detect small differences between two active treatments. Detecting such effects would have required a much larger sample (e.g., >500 participants), which was not feasible within the scope of this project. This is an important limitation, as even small differences between interventions may hold clinical significance. Statistical power when comparing two active treatments is a common challenge in clinical psychology research, and researchers often have to balance methodological rigor

with practical constraints. While our design aimed to balance rigor with feasibility, this constraint limits the strength of conclusions about subtle comparative effects between CPS and PMT.

Psychometric constraints in measures of treatment acceptability

A final limitation of the current project concerns treatment acceptability and the selection of assessment tools, particularly the lack of robust psychometric measures in this field (Canning et al., 2023; Kazdin, 2000). This study attempted to overcome this issue by choosing constructs that were aligned with Sekhon et al.'s framework for measuring treatment acceptability (for more details, see page 64). However, although we used the most rigorous measures available at the time, future research would benefit from the validation of more rigorous tools based on underlying theory, specifically designed to assess consumer satisfaction and acceptability. This advancement would also require resolving the lack of current consensus among researchers on how treatment acceptability should be operationalized and measured, which has led to a somewhat inconsistent approach to assessment.

Clinical Implications

The following section will consider the clinical and practical implications that can be derived from this RcT study of the treatment of youth diagnosed with ODD. We will compare and contrast the treatment outcomes for CPS against PMT, discuss the practical utility of these findings, and how CPS might be disseminated in the population. Next, we consider these findings in the context of generalization from efficacy trials to real-world clinics and delivery of CPS outside the U.S. Moreover, parenting programs have typically targeted young children; this section discusses the implications of this study regarding age and gender recommendations for CPS. Finally, a brief overview of the clinical implications of treatment

acceptability findings for CPS is provided, along with a discussion of the ramifications of high dropout rates.

CPS: An alternative treatment model

The key finding of Phase 1 of this RcT was that CPS, an alternative treatment for ODD, was equally effective as the gold standard treatment PMT in reducing symptoms, enhancing global functioning, and achieving diagnostic recovery in 7-14 year olds. Importantly, these results extend beyond a reduction in ODD symptoms, which is not always correlated with increased functionality, and include improvements in the individual's broader social, educational, and familial functioning (see Vatne & Bjorkly, 2008, for review). Demonstrating that research results are not only statistically significant but also practically meaningful is essential for determining the viability of an alternative therapy (Tolin et al., 2015). As previously discussed, the clinical significance of participant outcomes for CPS was demonstrated in this study in multiple ways (see page 119 for further discussion). In sum, the findings indicate that CPS resulted in clinically significant and sustained improvements across various domains of functioning, comparable to those achieved with the well-established treatment, PMT.

There are significant clinical implications arising from this finding. Despite the proliferation of PMT programs in the 1970s and 80s (Sanders, 2023), little progress has been made since then in developing alternative evidence-based treatments for children with challenging behaviors (Kaminski et al., 2024; Murrihy, Kidman, & Ollendick, 2010). PMT is undeniably considered "one of the major achievements of the mental health sciences" (Dadds & Rhodes, 2008, p. 2568). However, if families are non-responsive to PMT or not aligned with the treatment rationale (Canning et al., 2023), few options are currently available. Therefore, the results of this hybrid RcT, which replicate the findings of two earlier efficacy

studies, represent significant progress in expanding treatment options for families of youth diagnosed with ODD. The availability of CPS marks a significant clinical development as a therapeutic alternative for families who are non-responders to PMT, those not accepting of the PMT treatment model, or those who are more philosophically disposed to the CPS treatment rationale.

Further, as the required CPS clinician training and treatment dosage in this study closely resembles those of PMT, it appears that CPS could be disseminated in a similar manner. CPS requires the same clinician training time and treatment dosage as PMT (an average of 13 sessions), making it a feasible option for treating 7 to 14 year olds with ODD in a community setting. CPS could be disseminated to community-based mental health practitioners in much the same way as PMT has been (Sanders, 1999). Interested practitioners working in child psychology can attend training (combining didactic instruction with a supervision period) through Lives in the Balance, a not-for-profit organization with certified trainers globally. In Australia, PMT has been widely disseminated to child community centers with government funding support (see Triple P; Sanders, 1999; Sanders, 2023), and with similar input, CPS could also be disseminated at scale.

The equivalent outcomes found for CPS and PMT in this study are striking, given that, conceptually, they derive from very distinct rationales. For example, in PMT, the parent is thought to be the primary change agent, implementing positive strategies to encourage prosocial behavior (i.e., praise and attention), as well as consistent and proportional contingencies to counter undesirable behavior (Barkley, 1997). In contrast, CPS primarily incorporates child characteristics into its etiological model. Changing a parent's viewpoint to focus on lagging skills in the child builds empathy and removes the need for negative parenting practices (Greene & Winkler, 2019). In addition, the collaborative relationship developed between parent and child, as they negotiate the problem-solving process, is

considered an active ingredient of change in CPS (Greene & Winkler, 2019). Exploring why the results of PMT and CPS were so similar and distilling the potential active ingredients of change common to both treatments is clinically important as researchers consider the next steps in streamlining treatment delivery. These commonalities will be discussed in more depth in the following future directions section.

Generalization and transportability of CPS

The finding that CPS was equally effective as PMT when delivered in a routine clinical setting with real-world features highlights that results from earlier 'ivory tower' efficacy studies could be closely replicated in a routine clinical setting (Greene et al., 2004; Ollendick et al., 2016). This study's hybrid design provided greater confidence that conclusions reached in earlier RCTs transfer to real-world settings. Moreover, the absence of differences in treatment outcomes based on efficacy and effectiveness features (experienced therapists vs. graduate interns and community vs. clinical referral) challenges the notion that efficacy studies conducted under tightly controlled conditions cannot generalize to similar outcomes in the real world (Michelson et al., 2013; Ollendick et al., 2017). Given that concerns about the relevance of RCTs to routine clinical practice are a major barrier to the widespread implementation of evidence-based treatments, research that directly counters this belief and supports the validity of these findings has significant practical value (Addis et al., 1999). Thus, this study provides reassurance to clinicians who are skeptical about the generalizability of RCTs to their clinical settings, demonstrating that CPS is effective in both research and community settings.

Furthermore, this study is the first to show that the positive results associated with CPS are transportable to locations outside the U.S. (i.e. Australia). Earlier research has supported the validity of ODD as a diagnostic condition across cultures (though significant cultural variation has been observed), and this study found similar cross-cultural relevance

for CPS treatment when used in a different Western context (Canino et al., 2010; Polanczyk et al., 2015). From a practical perspective, these results tentatively suggest that CPS has cross-cultural relevance and could be disseminated internationally, adopting a process similar to that of PMT. However, it should be noted that this study was delivered in a Western, English-speaking context, and further research is needed to determine its effectiveness across diverse cultural contexts and languages. This will be discussed in the future research section.

Age and gender

Historically, Hanf-based parenting programs were specifically designed to target a younger age group of approximately 2-7 years (Eyberg et al., 2008). Consequently, it was long assumed that PMT was more effective in reducing behavior problems in younger children, while treatments grounded in cognitive theory were considered more suitable for older age groups (Brestan & Eyberg, 1998). Although several studies suggest that older children do not respond to PMT as well as younger children (Ogden & Hagen, 2008; Ollendick et al., 2016), a larger body of PMT research indicates that age does not predict treatment outcomes (Enebrink et al., 2012; Kjobli, Hukkelberg, & Ogden., 2013; see Lundahl et al., 2006 for review). Clinically, the findings of this study, along with those of Ollendick et al. (2016) demonstrate that both CPS and PMT are effective for children aged 7-14 years, tentatively suggesting that these treatments may be applicable from childhood through early adolescence. However, Ollendick et al. (2016) found that, while the treatment was effective overall for 7-14 year olds, the younger cohort achieved better outcomes than the older cohort. Although anecdotal evidence suggests that CPS has been used effectively with youth up to 16 years of age, further research is needed to assess its efficacy for this older age group.

There has been concern expressed in the literature as to whether existing treatments for ODD, and indeed the diagnosis itself, are relevant to girls (Waschbusch & King, 2006).

From a gender perspective, the results of this study, which replicate those of Ollendick et al. (2016) and Greene et al. (2004), affirmed that CPS treatment is effective for both males and females. However, it is noted that there were fewer females compared to males in these clinical samples (Greene et al., 2004: 69% male; Ollendick et al., 2016: 62% male; Murrihy et al., 2023: 72% male). Thus, altogether, these results tentatively suggest that practitioners can adopt CPS for the treatment of youth diagnosed with ODD for both genders and through to early adolescence.

Attrition

Results from this RcT affirm that consistent with previous research, there is a moderately high rate of dropout from CPS, albeit comparable to that of the PMT group. Specifically, 10% of families dropped out after enrolment and before treatment commenced, and 10% dropped out once started. This suggests that the dropout that has plagued PMT uptake (Chacko et al., 2016) is also a problem for CPS treatment and constitutes an ongoing barrier to treatment implementation. Thus, attrition did not prove helpful when exploring factors that could distinguish the two active treatments and demonstrate the superiority of one treatment over the other. Given that families who dropout tend to have poorer outcomes than those who complete treatment (Boggs et al., 2005), these findings highlight the importance of clinicians remaining vigilant about dropout risks. There is an urgent clinical need to better understand the factors contributing to attrition among youth with ODD, particularly at different stages of the process, such as dropout before treatment begins and after the treatment program has started. For example, research shows that parents who never initiated treatment had lower self-efficacy than those who dropped out once PMT treatment commenced (Chacko et al., 2017). Once these factors are identified, it is critical to trial

programs that include 'add-on' components specifically designed to retain youth and their families in treatment (Nock & Kazdin, 2005).

This RcT did not identify any differences in pre-treatment characteristics (e.g., sociodemographic, parent, or child factors) that might flag potential non-completers. However, earlier PMT research, has identified one predictor of dropout from treatment, SES, although it should be underlined that findings are not conclusive (see Chacko et al., 2016 for review; Dumas et al., 2007; Fernandez & Eyberg, 2009; Kazdin, 1990; Lavigne et al., 2010; Prinz & Miller, 1994; Werba et al., 2006). One possible explanation for the mixed results on variables related to dropout is the lack of data collection and uniformity in the research, which will be discussed in more depth shortly (Chacko et al., 2016). In summary, the factors that place families at high risk for dropout cannot be clearly identified at present. Even characteristics tentatively identified, such as SES, may serve as a proxy for many different barriers (Fernandez & Eyberg, 2009).

Once variables related to dropout are identified, families can be screened, identified as high risk, and referred to appropriate programs that address issues of attendance and engagement (Fernandez & Eyberg, 2009). These programs might include specifically tailored interventions for families at high risk of attrition (e.g., fees to cover transportation costs or providing childcare for siblings for low SES families) or generalized interventions. Thus far, few programs have been developed targeting specific characteristics except for Chacko et al. (2009), who were successful in increasing engagement in single mothers of children with ADHD who were participating in PMT through an 'add-on' program called STEPP (strategies to enhance positive parenting). This program was added to PMT and included (a) an extended intake interview that covered practical barriers, treatment expectancies, and parental attributions, (b) a problem-solving format within a large group to improve social support, and

(c) the incorporation of a problem-solving treatment to address problems (Chacko et al., 2009).

Although programs tailored to prevent dropout in high-risk families have yet to progress due to the lack of clearly defined predictors, retention programs that have adopted a more generalized add-on approach, have demonstrated some success and are available to practitioners immediately. These programs incorporate a wide-range of add-on techniques, including brief family strategic therapy (Szapocznik et al., 1988), discussions of general life issues (Prinz & Miller, 1994), problem-solving of logistical challenges, and motivational interviewing (Nock & Kazdin, 2005). For example, Nock and Kazdin (2005) trialed an add-on retention intervention alongside standard PMT and found that parents who received this intervention had better attendance and adherence rates compared to those who did not. The intervention, which was easily integrated into treatment, combined elements of motivational interviewing and the barriers to treatment participation model (BTPM), helping to elicit self-motivational statements and address practical barriers to attendance. In short, clinicians using CPS and PMT must be aware that dropout before or during treatment is a significant risk and that generalized 'add-on' interventions are readily available to mitigate this risk.

Treatment acceptability

To date, it has been well-established that PMT is a highly acceptable treatment for families (Abrahamse et al., 2018; Arkan et al., 2020; Diaz-Stransky et al., 2020; Fleming et al., 2022; Kohlhoff et al., 2020; Niec et al., 2016; Sanders et al., 2014). Phase 2 of study confirms, for the first time, that parents also perceive CPS as highly acceptable. The clinical implications of these findings suggest that clinicians adopting this new treatment modality can be confident that it is likely to be well accepted by families. Likewise, parents

considering CPS treatment can be reassured that other families have found it fair, aligned with their expectations, and a good fit for their family.

Whether there is any advantage of one active treatment over another with regard to treatment acceptability remains a matter of debate. While the overall rates of acceptability in this study were very high for both treatments, there was a statistically significant difference in favor of PMT on several outcome measures. This tentatively suggests that PMT treatment is experienced as slightly less demanding and more relevant than CPS. However, whether these statistically significant differences are negligible or translate into practically meaningful implications for families is still being determined and will require replication.

In sum, despite their usefulness in clinical research, social validity measures are not routinely adopted in treatment outcome research. As discussed previously, assessing treatment acceptability is beneficial because it can serve as an indicator of discontent and help identify potential retention risks (see Santana & Fontenelle, 2011 for review; Sekhon et al., 2017). In particular, it may help identify proximal barriers that are known to influence treatment acceptability (Kazdin, 2000). It is recommended, therefore, that given the high risk of attrition demonstrated in this study, clinicians use treatment acceptability screening tools, such as the Parent Evaluation Inventory (PEI) or the Barriers to Treatment Participation Scale (BTPS) at the outset and throughout treatment to identify and address potential barriers.

Summary of clinical implications

The successful evaluation of this hybrid study, along with earlier efficacy studies, provides cumulative support that elevates CPS to the level of an evidence-based treatment for youth aged 7-14 years diagnosed with ODD. Given the limited availability of evidence-based treatments for challenging behaviors, most of which are based on behaviorism and social learning theory, Phase 1 results represent a major advancement for clinicians and families,

particularly those not aligned with the PMT treatment model or who, in line with current trends, prefer a relationship-based approach. CPS also provides an alternative for families who do not respond to PMT. Moreover, CPS requires the same treatment dose and clinician training as PMT, suggesting that it could be disseminated on a large scale in a manner similar to PMT. Based on these results, CPS can also be recommended for a slightly older age group than has been traditionally targeted in PMT; targeting 7-14 year olds across genders and, tentatively, cultural backgrounds. Given the relatively high attrition identified in CPS, clinicians need to be vigilant for the potential for dropout during recruitment, before treatment starts, and throughout treatment. While predictors of attrition are yet to be fully determined, evidence-based programs for preventing attrition are available that can be integrated into current parent training programs (Nock & Kazdin, 2005). The results of Phase 2 of this study suggest that clinicians and families can be confident that CPS is highly acceptable to families, on par with the well-regarded PMT. These findings have practical implications, providing reassurance that CPS can be integrated into clinical practice with a strong likelihood of acceptance by families. That said, to minimize retention and the considerable dropout risk, clinicians might consider using treatment acceptability screening tools at the outset and during treatment. These tools can help identify and address potential barriers, ensuring better treatment engagement and retention.

Future Directions

The concluding section of this thesis will identify new research questions and avenues that have emerged, and delineate the future directions required to further develop and refine treatments for youth diagnosed with ODD. One important direction for future research arising from this study is to examine the unexpected finding on the CGI-S, where PMT showed a statistically significant advantage over CPS. Although this result was not replicated on the

CGI-I, it raises the possibility that PMT may have broader impacts on overall functioning, particularly in youth with comorbid symptoms of ADHD. Given the high prevalence of ADHD in this population and the design of Barkley's PMT protocol to target such dual presentations (1997), it is important to investigate whether this effect is replicable and clinically meaningful. Future studies should use a multi-method approach, including clinician ratings, parent and teacher reports, and objective measures of functioning, to assess global and domain-specific outcomes. This line of inquiry could help clarify whether PMT provides added benefits in cases with complex comorbidities, informing both clinical decision-making and treatment matching in real-world settings.

Expanding the evidence-base for CPS: Cultural, geographical and socioeconomic considerations

This hybrid study builds upon and extends earlier RCTs (Greene et al., 2004; Ollendick et al., 2016), providing evidence that CPS achieves treatment outcomes comparable to PMT for youth with ODD. These findings support CPS' growing status as an evidence-based therapy, solidifying its place among empirically supported treatments for challenging behaviors in youth. However, further research is needed to establish CPS as an evidence-based alternative that ensures broad applicability across geographically and socioeconomically diverse families. First, according to the transportability criteria outlined by Chambless and Hollon (1988) and Eyberg et al. (2008), replication of results by independent research teams, separate from the treatment originators is important. In all three RCTs evaluating CPS, the program creator (RG) was part of the investigatory team (Greene et al., 2004; Ollendick et al., 2016; Murrihy et al., 2023), albeit to a limited extent in the current study. Future research conducted by an independent team will help minimize potential bias

and evaluate the program's effectiveness outside the influence of its creators (Chambless & Hollon, 1998; Eyberg et al., 2008).

Second, while this study confirmed that CPS can be successfully implemented outside the U.S., it represents the first step in assessing its broader cross-cultural applicability. Future research should incorporate greater geographical diversity by examining CPS outcomes and acceptability across various countries and cultures, both Western and non-Western, as well as English and non-English speaking populations. A study directly comparing CPS treatment outcomes across cultures is specifically recommended. Additionally, research should investigate whether cross-cultural adaptations are needed to improve CPS' relevance and effectiveness in diverse cultural contexts (Canino et al., 2010; Ho et al., 2010; Weisz et al., 2006a).

Third, while this study, along with Ollendick et al.'s earlier RCT (2016), included families with an SES representative of clinics in the studied region, these areas are nonetheless characterized by relatively high SES (ABS, 2016; 2023). To ensure that findings can be generalized to populations from a range of socioeconomic backgrounds, future research should evaluate CPS in economically diverse settings (Booker et al., 2019). In summary, advancing the evidence-base for CPS requires independent replication studies, geographically diverse research to explore cross-cultural considerations, and investigations into its applicability across SES strata. These steps will provide greater clarity on the representativeness, scalability, and adaptability of CPS, ensuring its broader applicability as a robust treatment for youth with ODD.

Understanding who benefits from CPS: Exploring key predictors, moderators and mediators to inform future research directions

Which youth benefit? Exploring CPS treatment responsiveness.

As previously discussed, CPS in the current study did not result in diagnostic remission for up to 55% of participants, with results comparable to those of PMT. While the substantial improvements associated with these interventions have been highlighted, it is important not to overlook the fact that many youth retain their diagnosis despite treatment. Future research must explore why a significant proportion of youth fail to transition into the normative range post-treatment. This failure to respond to a satisfactory level is a significant issue, yet we are currently unable to reliably predict who will benefit from treatment and who will not. In the absence of this information, it is difficult to make appropriate referrals to CPS (or other treatments) or to identify variables that could be targeted for intervention. Addressing this research challenge necessitates identifying subgroups more or less likely to benefit from treatment (Reyno & McGrath, 2006). Predictor variables offer valuable insights into 'for whom' the treatment is effective, helping to guide efforts to optimize outcomes (Prins et al., 2015).

While considerable research on predictors of treatment outcome has been conducted with PMT, only a handful of studies have evaluated predictors of CPS (Booker et al., 2019; Dedousis-Wallace et al., 2022; Miller-Slough et al., 2016; Ollendick et al., 2016). A secondary analysis of this dataset by Dedousis-Wallace and colleagues (2022) constitutes one of these CPS studies. They identified several predictor variables for CPS (and PMT) associated with poorer youth outcomes. These include parents who are inconsistent disciplinarians, parents with high pre-treatment levels of child-responsible attributions (i.e. attributing their child's challenging behavior to internal factors within the child), and youth

with lagging skills in areas such as executive functioning, emotion regulation, language, and social skills. Additionally, higher pre-treatment levels of conduct problems were found to predict poorer treatment outcomes both at post-intervention and 6-month follow-up (Dedousis-Wallace et al., 2024). Similarly, Ollendick et al. (2016) investigated predictors for CPS and PMT, considering factors such as gender, race, ADHD, and SES, but found that only anxiety and age (i.e., younger participants performing better than older ones) predicted outcomes.

Additionally, research on predictors of treatment outcomes in PMT offers useful insights into potential risk factors for both poor and favorable outcomes in CPS. Across two meta-analyses, low family income emerged as the strongest predictor of poor outcomes in parent training programs, demonstrating a large standardized effect size (Leijten et al., 2013; Reyno & McGrath, 2006). However, this finding has not been consistently supported in the literature (Dedousis-Wallace et al., 2021), and the impact of financial disadvantage on treatment outcomes appears to be more nuanced. For instance, Leijten et al. (2013) found that disadvantaged families experienced less benefit from parent training at post-treatment, but only when the initial problem severity was low. Conversely, when children's initial conduct problems were severe (as in the current study), parent training programs were equally effective for both disadvantaged and non-disadvantaged families at post-treatment. In addition, SES serves as a proxy variable for various barriers to treatment associated with socioeconomic disadvantage, yet the specific barriers impacting disadvantaged families in treatment remain unidentified (Fernandez & Eyberg, 2009). These barriers include, but are not limited to, the inability to afford childcare or transportation, practical challenges such as managing multiple jobs and busy schedules that limit time for participation, and higher levels of stress and mental health challenges often experienced by individuals from lower SES backgrounds. Therefore, while identifying SES as a risk factor for poor treatment outcomes is

an important first step, future research aimed at improving treatment outcomes must also uncover the underlying barriers associated with low SES. Other predictors of treatment outcomes identified in PMT studies include severe child behavior problems at pre-treatment, maternal psychopathology, parent age, low education or occupational status, and single-parent status. However, findings regarding these predictors have been mixed, and further investigation is needed, extending to CPS treatment (Dedousis-Wallace et al., 2021; Reyno & McGrath, 2006). Notably, a major review of parental and familial predictors across 21 studies found that better outcomes in PMT are associated with a positive parent-child relationship (Dedousis-Wallace et al., 2021). Given that this is one of the clearer findings to emerge from PMT predictor research, future studies should focus on unraveling these variables linked to poorer (or favourable) outcomes within the parent-child dyad in CPS.

It is noteworthy that 91% of the sample in Phase 1 scored 6 or above on the ADIS, indicating that the sample consisted of children who would be particularly difficult to treat. Within this severe pre-treatment group, there may be a subgroup of participants with ODD who exhibit high callous-unemotional (CU) traits (e.g., a lack of empathy, remorse, or guilt). Youth with high CU traits have been shown to have poorer treatment outcomes in PMT compared to those with low CU traits and may have been overrepresented among those who maintained a clinical diagnosis (Hawes, Price, & Dadds, 2014; Kimonis et al., 2023; Murrihy et al., 2010). Identifying whether these participants also demonstrate a slower response to CPS is important. If so, screening for high CU traits at the start of treatment and implementing tailored interventions to improve outcomes would be essential. While this study did not focus on treatment responses in youth with high CU traits, examining this factor in future analyses of the dataset could provide critical insights into treatment response.

The severity of pre-treatment symptoms may also be related to the degree or type of comorbidity present. A potential avenue for further research is to analyze the dataset to

determine whether specific comorbidities are linked to poorer treatment response in CPS. While some studies suggest that comorbidities, such as ADHD confer additional risk (Biederman et al., 2008a; 2008b; Tseng et al., 2011), other research has found that comorbid anxiety is associated with better treatment outcomes (Ollendick et al., 2016). More research is needed to understand the role of comorbidity and any potential impact on treatment response.

In summary, research is still at the very early stages when it comes to explaining why approximately half of the youth in this study do not progress from the clinical to the non-clinical range following CPS treatment (Dedousis-Wallace et al., 2022; Ollendick et al., 2016; Prins et al., 2015). Investigating predictor variables, including characteristics of the parent, child, and circumstances, is an important research direction to better understand 'for whom' treatment works (Prins et al., 2015). Preliminary findings on predictor variables related to poorer treatment outcomes for challenging behaviors such as inconsistent discipline, lagging skills, child blame attributions, poor-quality parent-child relationships, and high pre-treatment symptom severity, must be replicated in CPS samples to clarify who benefits or does not benefit from treatment. Furthermore, treatment response in youth with high CU traits should also be investigated in relation to CPS treatment. If future research replicates these predictor variables in the context of CPS treatment, they could be used to screen for families at high risk for poorer outcomes, potentially leading to referrals for alternative treatments better suited to their specific needs, or enabling the development of tailored interventions delivered before, during, or after treatment. This might involve closely monitoring these risk factors, modifying treatment delivery (e.g. reducing the time required for child participation, reinforcing consistent disciplinary practices, and implementing skills more frequently), providing additional interventions (e.g., equipping parents with micro counselling skills, enhancing parental warmth or emotional regulation, and targeting attributions - see Dedousis-

Wallace et al., 2022 for further discussion), or extending and intensifying treatment dosage (e.g., regular phone check-ins, more in-person sessions; Sanders, 1999).

Enhancing treatment selection for ODD: Moderator analysis of CPS vs. PMT

Future research would benefit from identifying moderators that guide clinical decision-making regarding treatment selection. Although it has been demonstrated that both CPS and PMT treatments are equally effective for treating youth with ODD, we have yet to determine whether the same individuals benefit from PMT and CPS treatment, or whether the treatments work better for different subgroups. It would be of practical assistance, therefore, to identify treatment moderators of CPS and PMT to guide treatment selection. As it stands, only two studies have examined the differential impact of PMT and CPS on treatment outcomes (Booker et al., 2019; Dedousis-Wallace et al., 2022) and of these, only one yielded a significant finding for ODD (Dedousis-Wallace et al., 2022). The sole moderator identified to date for ODD is that parents with high child blame attributions have better treatment outcomes in CPS than in PMT (Dedousis-Wallace et al., 2022). That is, parents who are more likely to attribute their child's behavior problems to internal factors (rather than external ones) may benefit more from CPS than PMT. In such cases, parents could be screened, and those who score high in attributing their child's behavior to internal, stable characteristics might be better suited for CPS treatment.

Future research on moderators might delve deeper into the components contributing to a positive parent-child relationship. If these components are identified at the start of treatment and demonstrate moderator effects, they can inform treatment selection. Booker et al. (2019) examined the differential impact of PMT and CPS by investigating the specific components of the parent-child relationship and their effects on disruptive behavior symptomatology and adaptive skills. They found that parental warmth was associated with greater improvements in adaptive skills in the PMT condition compared to CPS, whereas

CPS showed better adaptive skills outcomes in families with high hostility levels compared to PMT. Although this finding did not extend to externalizing behaviors, it underscores the potential significance of parent-child interactions and the importance of investigating the different components associated with the parent-child relationship. For example, parental warmth, quality of attention, and shared decision-making may differentially impact treatment outcomes in PMT and CPS, thus warranting further investigation (Furman & Giberson, 1995).

Additionally, understanding therapist and family preferences for treatment could enhance clinical decision-making, particularly regarding the goodness of fit between the therapist, family, and treatment (Dedousis-Wallace et al., 2022). Parents often choose strategies aligned with their philosophies and experiences (Rahmqvist, Wells, & Sarkadi, 2014). Future research should explore whether families are more likely to engage with and adhere to treatments that align with their values and beliefs (Ollendick et al., 2016). Finally, researchers have highlighted the potential importance of variables such as father engagement, elevated maternal depressive symptoms, individual versus group treatment administration, and higher baseline levels of conduct problems as moderators worth exploring (Dedousis-Wallace et al., 2024; McMahon, Goulter, & Frick., 2021).

The next important step in research to guide treatment selection would be conducting an experiment using a crossover design, where participants receive both treatments sequentially (Campbell & Stanley, 2015). Half the group starts with PMT, followed by a washout period (i.e. a break between treatments in a clinical study, during which participants stop taking the previous treatment to eliminate its effects before starting a new one), and then transition to CPS and vice versa. This approach will allow direct observation of whether both treatments are effective for the same individuals or whether certain characteristics make one treatment more effective than the other for specific subgroups.

In sum, future research should aim to identify treatment moderators to guide clinical decision-making, helping to determine whether CPS and PMT are equally effective for all youth with ODD or if they yield better outcomes for different subgroups. Key areas for investigation include replicating findings that suggest parents with high child-blame attributions perform better in the CPS condition, exploring moderators specific to components of the parent-child relationship (e.g. parental warmth), and broadening the examination of variables theoretically and empirically associated with these treatments (Prins et al., 2015). Identifying moderators would enable tailored referrals by screening parents based on these factors, ensuring a better alignment between treatment approaches and family needs. Lastly, a crossover design involving PMT and CPS treatments could enhance the detection of treatment effects and the identification of moderators. This approach may provide a clearer understanding of which families benefit most from each treatment and refine the precision of treatment recommendations.

Exploring the similarities in CPS and PMT outcomes: Mediator and component analyses and implications for treatment mechanisms and next steps

One possibility for understanding why we have had equivalent treatment outcomes in PMT and CPS is that the treatments may share the same underlying mechanisms of change. If that were to be the case, identifying these active mechanisms is of clinical importance as they may offer the next step for research that aims to streamline and enhance the effectiveness of treatment (Prins et al., 2015). It would be helpful to identify these components and ensure they are emphasized during treatment to maximize treatment effects.

As to which common active ingredients of change may be implicated, one can look to purported change pathways of parent training through mediational and component analyses (Maric, Prins, & Ollendick, 2015; Wyatt Kaminski et al., 2008). First, mediational analysis

examines and identifies variables that "describe the process through which treatment achieves its effects" (Prins et al., 2015, p. 2). A second pathway to derive data that contributes to an understanding of the active ingredients of change is to examine specific therapy components that lead to a reduction in child externalizing behaviors and improved parenting outcomes (Leijten et al., 2019; Wyatt Kaminski et al., 2008). For example, a meta-analysis of parent training programs (defined as programs that include the active acquisition of parenting skills, including PMT) for parenting and child behavior problems has identified components - some relating to similar parenting practices identified in mediator research - as being associated with larger treatment effects than programs without these components (Leijten et al., 2019; Wyatt Kaminski et al., 2008).

Most of the mediator and component analysis literature on the active ingredients of change in treatments for ODD has focused on PMT treatment (Forehand et al., 2014), with the majority of research focusing on parenting practices. Due to this focus on parenting practices, it is perhaps unsurprising that mediator research has tentatively supported the role of parenting practices as an active ingredient underlying change resulting from treatment in youth with ODD (see Forehand et al., 2014 for review; Rimestad, O'Toole, & Hougaard, 2020; Seabra-Santos et al., 2016). More specifically, with regard to parenting practices, some support has been found for changes in oppositional symptoms being mediated by increases in positive parenting (e.g., praise, effective communication, attending), consistent discipline (e.g., appropriate, consistent), and reductions in negative parenting (e.g., harshness, criticism, skills related to affect regulation; see Forehand et al., 2014 for review; Rimestad et al., 2020; Seabra-Santos et al., 2016). These conclusions are tempered, however, by the fact that approximately half of the studies on mediators of parental practices reviewed did not show positive findings (Forehand et al., 2014). Additionally, parenting mediators were measured by composite factors rather than specific components of parenting practices, and research did not

always adhere to the temporal precedence criteria necessary for mediation (Maric et al., 2015).

In a similar vein, researchers have identified specific components, such as teaching parents positive reinforcement (Leijten et al., 2019), coaching them to interact positively with their children (Leijten et al., 2019; Wyatt Kaminski et al., 2008), and supporting skills acquisition during sessions with their child through active learning (augmented by in vivo practice) as being associated with larger treatment effects than programs without these components (Wyatt Kaminski et al., 2008). Notably, some of the parenting practices identified above as active ingredients of change in PMT - positive and consistent parenting and supporting skills acquisition via active learning - are also features of CPS treatment. CPS seeks to improve the parent-child relationship by consistently and reliably engaging in the proactive Plan B process. Parents patiently seek information from the child about why they are having difficulty meeting expectations. They reflect and empathize with the child's position and collaboratively reach potential, mutually agreeable solutions. The CPS model also includes roleplays in which parents are coached to teach new skills to their child during Plan B, receiving instruction, immediate reinforcement, and corrective feedback from the clinician. Lastly, engaging in the Plan B process in CPS to proactively counter challenging behavior is thought to impact harsh parenting practices.

As part of a collaborative research effort to deepen understanding of CPS mechanisms, this PhD was conducted alongside a complementary PhD (Dedousis-Wallace, 2025), which extended the investigation by examining a set of mechanisms specific to the CPS model, including lagging skills, inconsistent discipline, and child-blame attributions. Results of this study showed that one of the three constructs (inconsistent discipline) was associated with change in both CPS and PMT, indicating that some mechanisms may be shared across treatments while others remain unique and require further exploration. It is

noted that the analytical model used in this study did not allow for direct comparisons of whether the mechanisms differed between the two treatments.

In summary, the equivalent outcomes found between CPS and PMT in Phase 1 have prompted consideration of whether the treatments share common mechanisms of change, which could inform and streamline future program development. PMT mediator and component analyses research point to increases in positive parenting, reductions in harsh parenting, consistent discipline, and active learning through role plays with children, as potential active ingredients of change. Notably, these features identified as active components in PMT programs also appear to be present in CPS treatment, although this has yet to be established in mediational research. Future research needs to investigate these factors in relation to differences in underlying mechanisms between CPS and PMT, expanding the exploration of mediators and component analyses to include parenting self-efficacy, and a more nuanced understanding of the parent-child relationship (Dedousis-Wallace et al., 2024). This future research must address the limitations of previous mediation studies that relied on composite, global dimensions of parenting, and instead break down these factors into specific components, enabling the future streamlining of treatments (Maric et al., 2015; Rimestad et al., 2020). Additionally, future research must meet the temporal precedence criteria necessary for mediation (Maric et al., 2015). Further developing this knowledge of underlying change mechanisms is crucial for improving existing programs to ensure they are both efficient and effective.

Understanding the maintenance of gains in CPS over time: Insights and future directions for research

Research shows promising findings that initial gains from participation in CPS treatment for youth with ODD are maintained in a stable manner for up to six months after treatment (Greene et al., 2004; Murrihy et al., 2023; Ollendick et al., 2016). While studies of

PMT treatment outcomes for youth with behavior problems demonstrate sustained gains for three years (Van Aar et al., 2017) and beyond (Hood & Eyberg, 2003; Webster-Stratton et al., 2011), treatment outcomes for CPS still require investigation over a longer timeframe. Moreover, CPS treatment gains were maintained at an equivalent level to PMT, once again highlighting that the two approaches produce comparable outcomes even after treatment completion.

The reasons why both CPS and PMT maintain treatment gains at similar levels over a six-month timeframe remain speculative. While factors governing the initiation of behavior change are relatively well understood, much less is known about factors that influence behavior maintenance (Rothman, 2000). Hence, in addition to investigating the longer-term benefits of CPS, the next critical step for research is to develop an integrated theory of behavior change maintenance to guide interventions and ensure enduring outcomes. As discussed earlier, Kwasnicka and colleagues (2016) have made progress in this area by reviewing 117 theories of behavior change and identifying key theoretical hypotheses related to behavior maintenance. These five themes include motivation, self-regulation, internal resources, social support, and habitual cue-driven responses. The next step forward involves reviewing the evidence associated with each theme and conducting empirical testing to validate these hypotheses (Kwasnicka et al., 2016). The ultimate goal is to move closer to an integrated theory of behavior change maintenance that can inform future interventions.

Study insights into attrition: Implications for future research and treatment retention

This study confirmed that dropout rates in CPS are as problematic as those that have historically challenged PMT (Chacko et al., 2016), eliminating dropout as a factor that could favor one treatment over the other. Moving forward, several methodological issues must be addressed to enhance the utility of future attrition research. Studies should report attrition rates across the recruitment, enrollment, and treatment stages, adhere to consistent definitions

and calculations of attrition, and clearly outline all methods used to retain and engage families.

As mentioned previously, reporting attrition rates at all stages of the recruitment and treatment process is crucial for designing tailored interventions to improve retention (Chacko et al., 2016). This includes reporting attrition for (a) those who meet the inclusion criteria but do not enroll in the study, (b) those who enroll but dropout before attending the first session, and (c) those who dropout after starting treatment. Collecting this information is important for several reasons. For example, many families dropout during the recruitment process, missing the potential benefits of program engagement. Due to methodological issues, we currently do not know the full extent of this problem or the factors associated with dropout at this stage. In addition, if we aim to disseminate CPS on a larger scale, it is important to understand how many families do not enroll when CPS is offered at a community mental health center. Interventions to address this, such as collaborations with providers or speaking to parents about the benefits of CPS, could be introduced at this stage (Axford et al. 2012).

The uniformity of attrition reporting practices can also be improved in future research. Researchers have argued that study-specific reporting has hindered cross-study comparisons and that better consensus on definitions is needed moving forward (Lindsay et al., 2014). For example, definitions have varied, with some studies requiring 50-90% attendance to meet the criteria for completion of an intervention (Chacko et al., 2016). Another methodological issue to address is the declaration of all methods used to engage families. In the current literature, studies with low attrition rates are unclear about whether methods were employed to improve engagement such as text message reminders or financial incentives (Chacko et al., 2016). Valuable insights can be gained from research with low dropout rates, but only if more detailed information is captured.

It has been previously asserted that identifying factors related to dropout at each stage of the recruitment and treatment process could guide retention initiatives. Research into characteristics associated with dropout, including those in this study, have yielded inconclusive or conflicting results (Chacko et al., 2016 for review; Lavigne et al., 2010; see Reyno & McGrath, 2006 for review; Werba et al., 2006), indicating that further investigation into these variables is needed (Dumas et al., 2007; Fernandez & Eyberg., 2009; Kazdin, 1990; Lavigne et al., 2010; Prinz & Miller, 1994; Werba et al., 2006). Additional characteristics that may predict dropout and warrant further exploration include greater maternal stress (Kazdin, 1990; Werba et al., 2006), higher family adversity (Prinz & Miller, 1994; Chacko et al., 2008, 2009), maternal criticism (Werba et al., 2006; Fernandez & Eyberg, 2009); high externalizing attributions (i.e., parental perceptions that the child is the cause of the problematic behavior), and treatment expectancies (Miller & Prinz, 2003). Once variables are identified at each stage of the recruitment and attrition process, high-risk families can be targeted, and interventions - such as those discussed in the clinical implications section - can be further investigated.

In summary, the relatively high dropout rates observed in CPS and PMT for youth with challenging behaviors highlight the importance of prioritizing attrition on the research agenda. Before interventions to improve recruitment and retain families in therapy can be considered, efforts must primarily focus on addressing the methodological issues in the research. Collecting recruitment and retention data at various stages of the process is crucial, as is agreeing on uniform definitions for attendance and adherence. Additionally, capturing all data related to the methods used in studies to engage families is essential. Research on factors associated with dropout is conflicting, and more studies are urgently needed to identify families at high risk of dropout, and to develop strategies to retain them in treatment.

Enhancing CPS outcomes: Priorities for research and the role of treatment acceptability

In this study, CPS was found to be highly acceptable to families, comparable to PMT, though slightly inferior on measures such as adherence, satisfaction, perceived relevance, and treatment-related demands. The small mean differences between PMT and CPS on these measures raise the question of whether these differences are practically significant. A replication of this study is primarily needed to both confirm that CPS meets parental expectations as a highly acceptable treatment and to determine whether PMT has a slight advantage over CPS in this respect; potentially posing fewer barriers to treatment. Before undertaking replication research, previously discussed shortcomings (see limitation section page 147) in the measurement of treatment acceptability, should be addressed. Consensus is needed among researchers on how to operationalize the treatment acceptability construct, along with further validation of rigorous psychometric tools (Canning et al., 2023; Kazdin, 2000). For guidance, researchers can refer to Sekhon and colleagues' framework for measuring treatment acceptability, which provides a strong foundation for advancing this operationalization (2017).

Moreover, future studies should expand data collection beyond parents to include the perspectives of youth and therapists. When assessing treatment acceptability, this study did not collect data from the youth with ODD, instead relying upon parents' evaluations of the treatments following a precedent set by previous studies (Arkan et al., 2020; Fefer et al., 2022). This precedent may have arisen because of an underlying assumption that children with behavior problems typically attend therapy in an involuntary capacity, are often not fully aware of the negative impact of their behavior, and therefore might not be reliable reporters of treatment acceptability. In CPS, youth are required to actively participate in therapy over an extended three-month period, working with their parents collaboratively on generating proactive Plan B strategies. Their perceptions of the therapist, the therapeutic process,

treatment demands, and the setting are critical and should not be overlooked. Data from Phase 1 of this study highlights that child refusal to participate is a common reason for dropout, underscoring the importance of including the child's perspective in research.

In addition, although therapists were drawn upon to rate their perception of how acceptable their families found treatment, this study did not ask them directly about their perception of treatment. Seeking the input of therapists is important, as therapist ambivalence about the intervention, may negatively impact fidelity and the therapeutic relationship (Allinder & Oats, 1997; Borrelli et al., 2005). Addressing these areas will provide a more comprehensive understanding of treatment acceptability and its impact on outcomes. In sum, this study found CPS to be a highly acceptable treatment, comparable to PMT, but slightly inferior on some measures. Replication research is needed to confirm that CPS is well-received by families, to investigate the potential advantages of PMT, and to address gaps in measuring treatment acceptability by establishing consensus on operational definitions and validating psychometric tools. Future research should also include input from children undergoing these treatments as well as their therapists.

Concluding Remarks

The findings of this thesis have brought us closer to answering in the affirmative with regard to the central question underpinning this thesis: "Can an alternative treatment approach, such as CPS, produce outcomes for youth with ODD that are comparable to those achieved with PMT, while maintaining similar levels of acceptability and aligning with the needs and parenting philosophies of families seeking a different approach?". Motivated by evolving societal beliefs about parenting, overwhelming need, a growing awareness of suboptimal PMT remission rates, and an understanding of the burden associated with ODD, this research marks a significant step in building the evidence base for an alternative

treatment for youth with ODD (Canning et al., 2023). The value of this study lies in its replication of earlier efficacy trials using a study design that incorporated real-world features (Greene et al., 2004; Ollendick et al., 2016). Specifically, the study demonstrated that CPS is equivalent to PMT in improving both symptomatic and functional outcomes, even when evaluated in a more ecologically valid context reflecting real-world conditions. Moreover, this study affirmed that CPS gains are sustained at a stable level for up to six months. Altogether, these findings reinforce the generalizability of CPS as an effective treatment approach for 7 to 14 year olds with ODD, not only under controlled conditions but also in settings that mirror everyday clinical environments (Eyberg et al., 2008; Tolin et al., 2015). This provides reassurance to clinicians who may be hesitant to adopt treatments based on studies conducted in non-applied settings (Addis et al., 1999).

Additional key findings include the effectiveness of CPS for both genders, the transportability of CPS across different English-speaking Western populations, and the comparable treatment dosage and clinician training time required for CPS and PMT, which have important implications for dissemination. In addition to enhancing the external validity of research findings, this thesis also made a significant contribution by examining the social validity of CPS, a crucial factor in the adoption of a novel treatment that is often overlooked. The findings from this thesis demonstrated that CPS was considered highly acceptable to families. Altogether, these results support the introduction of a therapeutic alternative for parents who are PMT non-responders, are not aligned with the rationale of behaviorism, or are more philosophically aligned with CPS' collaborative approach.

While this study represents progress in validating a new treatment for ODD, several critical questions remain. Although outcomes were largely equivalent, clinician ratings (CGI-S) showed greater improvement in the PMT group, suggesting a possible advantage in addressing broader impairments. CPS was rated as highly acceptable, though slightly lower

than PMT on measures such as adherence, satisfaction, and treatment demands. These small differences raise questions about their practical significance. Replication is needed to confirm CPS's acceptability and clarify whether PMT offers a small but meaningful advantage, an issue that warrants further consideration.

More widely, we still lack clarity on for whom these treatments are most effective (is it the same population that benefits from PMT and CPS?), how best to guide referral decisions between PMT and CPS, and whether shared treatment components and underlying mechanisms account for their comparable outcomes. Further research into the predictors, moderators, and mediators of PMT and CPS is vital to address these gaps in knowledge. Importantly, this study also highlights that treatment attrition, a well-documented issue in PMT, is equally challenging in CPS, underscoring the need for urgent research into factors associated with dropout and the evaluation of tailored treatment interventions.

In conclusion, the findings from this thesis affirm CPS as a promising evidence-based therapy for youth with ODD, offering a significant advancement in treatment options in a field with limited alternatives. However, advancing our understanding of the broader applicability of CPS across economically and geographically diverse families, and testing it with an independent research team, are critical to supporting its widespread dissemination. While significant progress has been made, the ongoing journey to understand for whom and under what conditions treatments work for youth with ODD offers exciting potential and will benefit from continued effort and dedication.

References

Abrahamse, M., Egan, R., Coelman, F., Heiner, W. (2018). Transporting PCIT around the world. In: L. Niec (Ed.), *Handbook of Parent-Child Interaction Therapy. Cham*. (pp. 269-281). Springer. https://doi.org/10.1007/978-3-319-97698-3_17

Addis, M. E., Wade, W. A., & Hatgis. C. (1999). Barriers to dissemination of evidence-based practices: addressing practitioners' concerns about manual-based psychotherapies. *Clinical Psychology (New York, N.Y.)*, *6*(4), 430–441. https://doi.org/10.1093/clipsy.6.4.430

Allinder, R. M., & Oats, R. G. (1997). Effects of acceptability on teachers' implementation of curriculum-based measurement and student achievement in mathematics computation. *Remedial and Special Education, 18(2),* 113-120. https://doi.org/10.1177/074193259701800205

Alizadeh, S., Talib, M. B. A., Abdullah, R., & Mansor, M. (2011). Relationship between parenting style and children's behavior problems. *Asian Social Science*, *7*(12), 195–200. https://doi.org/10.5539/ass.v7n12p195

Althoff, R. R., Kuny-Slock, A. V., Verhulst, F. C., Hudziak, J. J., & van der Ende, J. (2014). Classes of oppositional-defiant behavior: concurrent and predictive validity. *Journal of Child Psychology and Psychiatry*, *55*(10), 1162–1171. https://doi.org/10.1111/jcpp.12233

American Psychiatric Association (APA). (1994). *Diagnostic and statistical manual of mental disorders* (4 ed.). Washington, DC: Author.

American Psychiatric Association (APA). (2022). *Diagnostic and statistical manual of mental disorders* (5th ed., text rev.). Arlington, VA: APA Publishing. https://doi.org/10.1176/appi.books.9780890425787

Anderson, S. R., & Ollendick, T. H. (2012). Diagnosing oppositional defiant disorder using the Anxiety Disorders Interview Schedule for DSM-IV: parent version and the Diagnostic Interview Schedule for Children. *Journal of Psychopathology and Behavioral Assessment*, *34*(4), 467–475. https://doi.org/10.1007/s10862-012-9294-5

Andrews, E. (2019). A parenting intervention for middle childhood: An expansion of a Circle of Security intensive individual protocol. *The Educational and Developmental Psychologist*, *36*(1), 27–31. https://doi.org/10.1017/edp.2019.5

Arkan, B., Güvenir, T., Ralph, A., & Day, J. (2020). The efficacy and acceptability of the Triple P: Positive Parenting Program with Turkish parents. *Journal of Child and Adolescent Psychiatric Nursing, 33*(3), 148–156. https://doi.org/10.1111/jcap.12283

Armbruster, P., & Fallon, T. (1994). Clinical, sociodemographic, and systems risk factors for attrition in a children's mental health clinic. *American Journal of Orthopsychiatry, 64*(4), 577-585. https://doi.org/10.1037/h0079571

Auby, J. H. (2016). *Predictors of treatment satisfaction in cognitive behavioral therapy for youth* (Master's thesis).

Australian Bureau of Statistics (ABS). (2016). *Data by region.* https://dbr.abs.gov.au/

Australian Bureau of Statistics (ABS). (2023). *Estimated resident population, country of birth, age and sex – as at 30 June 1996 to 2022*. Stat Data Explorer. Retrieved January 10, 2024, from https://explore.data.abs.gov.au

Australian Institute of Health and Welfare (AIHW). (2009). *A picture of Australia's children 2009*. Cat. no. PHE 112. Canberra: AIHW.

Australian Institute of Health and Welfare (AIHW). (2023). *Australian burden of disease study 2023: Impact of disease and injury in Australia*. https://doi.org/10.25816/cd93-zu37

Axford, N., Lehtonen, M., Kaoukji, D., Tobin, K., & Berry, V. (2012). Engaging parents in parenting programs: Lessons from research and practice. *Children and Youth Services Review*, *34*(10), 2061–2071. https://doi.org/10.1016/j.childyouth.2012.06.011

Backhaus, S., Leijten, P., Jochim, J., Melendez-Torres, G. J., & Gardner, F. (2023). Effects over time of parenting interventions to reduce physical and emotional violence against children: a systematic review and meta-analysis. *EClinicalMedicine*, *60*. https://doi.org/10.1016/j.eclinm.2023.102003

Bados, A., Balaguer, G., & Saldaña, C. (2007). The efficacy of cognitive-behavioral therapy and the problem of drop-out. *Journal of Clinical Psychology, 63*(6), 585–592. https://doi.org/10.1002/jclp.20368

Bailey, D. H., Duncan, G. J., Cunha, F., Foorman, B. R., & Yeager, D. S. (2020). Persistence and fade-out of educational-intervention effects: mechanisms and potential solutions. *Psychological Science in the Public Interest*, *21*(2), 55–97. https://doi.org/10.1177/1529100620915848

Baker-Ericzén, M. J., Hurlburt, M. S., Brookman-Frazee, L., Jenkins, M. M., & Hough, R. L. (2010). Comparing child, parent, and family characteristics in usual care and empirically supported treatment research samples for children with disruptive behavior disorders. *Journal of Emotional and Behavioral Disorders*, *18*(2), 82–99. https://doi.org/10.1177/1063426609336956

Bandura, A., & Walters, R.H. (1963). *Social learning and personality development.* Holt Rinehart and Winston.

Banken, D. M., & Wilson, G. L. (1992). Treatment acceptability of alternative therapies for depression: A comparative analysis. *Psychotherapy: Theory, Research, Practice, Training, 29*(4), 610–619. https://doi.org/10.1037/0033-3204.29.4.610

Barkley, R. A. (1987). *Defiant children.* (3rd ed.). New York: Guilford Press.

Barkley, R. A., Guevremont, D. C., Anastopoulos, A. D., & Fletcher, K. E. (1992). A comparison of three family therapy programs for treating family conflicts in adolescents with attention-deficit hyperactivity disorder. *Journal of Consulting and Clinical Psychology, 60(3),* 450–462. https://doi.org/10.1037/0022-006X.60.3.450

Barkley, R. A. (1997). *Defiant children: A clinician's manual for assessment and parent training* (2nd ed.). New York: Guilford Press.

Barkley, R. A. (2013). *Defiant children: A clinician's manual for assessment and parent training* (3rd ed.). New York: Guilford Press.

Barth, R. P., & Liggett-Creel, K. (2014). Common components of parenting programs for children birth to eight years of age involved with child welfare services. *Children and Youth Services Review*, *40*, 6–12. https://doi.org/10.1016/j.childyouth.2014.02.004

Beecham, J. (2014). Annual Research Review: Child and adolescent mental health interventions: a review of progress in economic studies across different disorders. *Journal of Child Psychology and Psychiatry*, *55*(6), 714–732. https://doi.org/10.1111/jcpp.12216

Biederman, J., Petty, C. R., Dolan, C., Hughes, S., Mick, E., Monuteaux, M. C., & Faraone, S. V. (2008b). The long-term longitudinal course of oppositional defiant disorder and conduct disorder in ADHD boys: findings from a controlled 10-year prospective longitudinal follow-up study. *Psychological Medicine*, *38*(7), 1027–1036. https://doi.org/10.1017/S0033291707002668

Biederman, J., Petty, C. R., Monuteaux, M. C., Mick, E., Parcell, T., Westerberg, D., & Faraone, S. V. (2008a). The longitudinal course of comorbid oppositional defiant disorder in girls with attention-deficit/hyperactivity disorder: Findings from a controlled 5-year prospective longitudinal follow-up study. *Journal of Developmental*

and Behavioral Pediatrics, *29*(6), 501–507. https://doi.org/10.1097/DBP.0b013e318190b290

Boggs, S. R., Eyberg, S. M., Edwards, D. L., Rayfield, A., Jacobs, J., Bagner, D., & Hood, K. K. (2005). Outcomes of parent-child interaction therapy: a comparison of treatment completers and study drop outs one to three years later. *Child & Family Behavior Therapy*, *26*(4), 1–22. https://doi.org/10.1300/J019v26n04_01

Booker, J. A., Capriola-Hall, N. N., Greene, R. W., & Ollendick, T. H. (2019). The parent–child relationship and posttreatment child outcomes across two treatments for oppositional defiant disorder. *Journal of Clinical Child & Adolescent Psychology, 49(3),* 405–419. https://doi.org/10.1080/15374416.2018.1555761

Booker, J. A., & Matson, J. L. (2023). Oppositional defiant disorder. In J. Matson (Eds.), *Handbook of clinical child psychology* (pp. 857–881). Springer International Publishing. https://doi.org/10.1007/978-3-031-24926-6_40

Boot, W. R., Simons, D. J., Stothart, C., & Stutts, C. (2013). The pervasive problem with placebos in psychology: why active control groups are not sufficient to rule out placebo effects. *Perspectives on Psychological Science*, *8*(4), 445–454. https://doi.org/10.1177/1745691613491271

Borrelli, B., Sepinwall, D., Ernst, D., Bellg, A. J., Czajkowski, S., Breger, R., DeFrancesco, R., Levesque, C., Sharp, C., Ogedegbe, D., Resnick, B & Orwig, D. (2005). A new tool to assess treatment fidelity and evaluation of treatment fidelity across 10 years of health behavior research. *Journal of Consulting and Clinical Psychology, 73(5),* 852. http://doi.org/10.1037/0022-006X.73.5.852

Boylan, K., Vaillancourt, T., Boyle, M., & Szatmari, P. (2007). Comorbidity of internalizing disorders in children with oppositional defiant disorder. *European Child & Adolescent Psychiatry*, *16*(8), 484–494. https://doi.org/10.1007/s00787-007-0624-1

Bredström, A. (2019). Culture and context in mental health diagnosing: scrutinizing the DSM-5 revision. *The Journal of Medical Humanities*, *40*(3), 347–363. https://doi.org/10.1007/s10912-017-9501-1

Brestan, E. V., & Eyberg, S. M. (1998). Effective psychosocial treatments of conduct-disordered children and adolescents: 29 years, 82 studies, and 5,272 kids. *Journal of Clinical Child Psychology, 27(2),* 180-189. https://doi.org/10.1207/s15374424jccp2702_5

Brown, A., Mountford, V., & Waller, G. (2013). Therapeutic alliance and weight gain during cognitive behavioural therapy for anorexia nervosa. *Behaviour Research and Therapy*, *51*(4–5), 216–220. https://doi.org/10.1016/j.brat.2013.01.008

Burke, J. D., Loeber, R., Lahey, B. B., & Rathouz, P. J. (2005). Developmental transitions among affective and behavioral disorders in adolescent boys. *Journal of Child Psychology and Psychiatry, 46(11),* 1200-1210. https://doi.org/10.1111/j.1469-7610.2005.00422.x

Burke, J. D., Rowe, R., & Boylan, K. (2014). Functional outcomes of child and adolescent oppositional defiant disorder symptoms in young adult men. *Journal of Child Psychology and Psychiatry*, *55*(3), 264–272. https://doi.org/10.1111/jcpp.12150

Burke, J. D., Derella, O. J., & Johnston, O. G. (2018). Diagnostic issues in oppositional defiant disorder. In J. E. Lochman & W. Matthys (Eds.), *The Wiley handbook of disruptive and impulse-control disorders* (pp. 21–36). Wiley Blackwell. https://doi.org/10.1002/9781119092254.ch2

Burke, J. D., Evans, S. C., & Carlson, G. A. (2022). Debate: oppositional defiant disorder is a real disorder. *Child and Adolescent Mental Health*, *27*(3), 297–299. https://doi.org/10.1111/camh.12588

Campbell, D. T., & Stanley, J. C. (2015). *Experimental and quasi-experimental designs for research*. Ravenio books.

Canino, G., Polanczyk, G., Bauermeister, J. J., Rohde, L. A., & Frick, P. J. (2010). Does the prevalence of CD and ODD vary across cultures? *Social Psychiatry and Psychiatric Epidemiology*, *45*(7), 695–704. https://doi.org/10.1007/s00127-010-0242-y

Canning, M. G., Jugovac, S., & Pasalich, D. S. (2023). An updated account on parents' use of and attitudes towards time-out. *Child Psychiatry and Human Development, 54*(2), 436–449. https://doi.org/10.1007/s10578-021-01252-0

Chacko, A., Wymbs, B. T., Flammer-Rivera, L. M., Pelham, W. E., Walker, K. S., Arnold, F. W., Visweswaraiah, H., Swanger-Gagne, M., Girio, E. L., Pirvics, L. L., & Herbst, L. (2008). A pilot study of the feasibility and efficacy of the strategies to enhance Positive Parenting (STEPP) Program for single mothers of children with ADHD. *Journal of Attention Disorders*, *12*(3), 270–280. https://doi.org/10.1177/1087054707306119

Chacko, A., Wymbs, B. T., Wymbs, F. A., Pelham, W. E., Swanger-Gagne, M. S., Girio, E., Pirvics, L., Herbst, L., Guzzo, J., Phillips, C., & O'Connor, B. (2009). Enhancing traditional behavioral parent training for single mothers of children with ADHD. *Journal of Clinical Child and Adolescent Psychology*, *38*(2), 206–218. https://doi.org/10.1080/15374410802698388

Chacko, A., Jensen, S. A., Lowry, L. S., Cornwell, M., Chimklis, A., Chan, E., Lee, D., & Pulgarin, B. (2016). Engagement in behavioral parent training: review of the literature and implications for practice. *Clinical Child and Family Psychology Review*, *19*(3), 204–215. https://doi.org/10.1007/s10567-016-0205-2

Chacko, A., Wymbs, B. T., Rajwan, E., Wymbs, F., & Feirsen, N. (2017). Characteristics of parents of children with ADHD who never attend, drop out, and complete Behavioral

Parent Training. *Journal of Child and Family Studies*, *26*(3), 950–960. https://doi.org/10.1007/s10826-016-0618-z

Chambless, D. L., & Hollon, S. D. (1998). Defining empirically supported therapies. *Journal of Consulting and Clinical Psychology*, *66*(1), 7–18. https://doi.org/10.1037/0022-006X.66.1.7

Christenson, J. D., Crane, D. R., Malloy, J., & Parker, S. (2016). The cost of oppositional defiant disorder and disruptive behavior: A review of the literature. *Journal of Child and Family Studies, 25*(9), 2649–2658. https://doi.org/10.1007/s10826-016-0430-9

Cohen, J. (1960). A coefficient of agreement for nominal scales. *Educational and Psychological Measurement*, *20*(1), 37–46. https://doi.org/10.1177/001316446002000104

Comer, J. S., Furr, J. M., Miguel, E. M., Cooper-Vince, C. E., Carpenter, A. L., Elkins, R. M., Kerns, C. E., Cornacchio, D., Chou, T., Coxe, S., DeSerisy, M., Sanchez, A. L., Golik, A., Martin, J., Myers, K. M., & Chase, R. (2017). Remotely delivering real-time parent training to the home: An initial randomized trial of Internet-delivered parent–child interaction therapy (I-PCIT). *Journal of Consulting and Clinical Psychology, 85(9),* 909–917. https://doi.org/10.1037/ccp0000230

Copeland, W. E., Shanahan, L., Costello, E. J., & Angold, A. (2009). Childhood and adolescent psychiatric disorders as predictors of young adult disorders. *Archives of General Psychiatry*, *66*(7), 764–772. https://doi.org/10.1001/archgenpsychiatry.2009.85

Copeland, W. E., Angold, A., Costello, E. J., & Egger, H. (2013). Prevalence, comorbidity, and correlates of DSM-5 proposed Disruptive Mood Dysregulation Disorder. *The American Journal of Psychiatry*, *170*(2), 173–179. https://doi.org/10.1176/appi.ajp.2012.12010132

Costello, E. J., He, J., Sampson, N. A., Kessler, R. C., & Merikangas, K. R. (2014). Services for adolescents with psychiatric disorders: 12-month data from the national comorbidity survey–adolescent. *Psychiatric Services*, *65*(3), 359–366. https://doi.org/10.1176/appi.ps.201100518

Coyne, J. (2013). Parenting from the outside-in: reflections on parent training during a potential paradigm shift. *Australian Psychologist, 48(5),* 379–387. https://doi.org/10.1111/ap.12010

Dadds, M. R., & Rhodes, T. (2008). Aggression in young children with concurrent callous–unemotional traits: can the neurosciences inform progress and innovation in treatment approaches? *Philosophical Transactions - Royal Society. Biological Sciences*, *363*(1503), 2567–2576. https://doi.org/10.1098/rstb.2008.0029

Dadds, M. R. (2012). Helping troubled children: seven things you should know about the origins of mental health disorders. *InPsych, 34(3),* 8-11.

Dadds, M. R., & Tully, L. A. (2019). What is it to discipline a child: what should it be? A reanalysis of time-out from the perspective of child mental health, attachment, and trauma. *The American Psychologist*, *74*(7), 794–808. https://doi.org/10.1037/amp0000449

Dedousis-Wallace, A., Drysdale, S. A., McAloon, J., & Ollendick, T. H. (2021). Parental and familial predictors and moderators of Parent Management Treatment programs for conduct problems in youth. *Clinical Child and Family Psychology Review*, *24*(1), 92–119. https://doi.org/10.1007/s10567-020-00330-4

Dedousis-Wallace, A., Drysdale, S. A. O., McAloon, J., Murrihy, R. C., Greene, R. W., & Ollendick, T. H. (2022). Predictors and moderators two treatments of oppositional defiant disorder in children. *Journal of Clinical Child and Adolescent Psychology*,

ahead-of-print (ahead-of-print), 1–16. https://doi.org/10.1080/15374416.2022.2127102

Dedousis-Wallace (2024). *Examining predictors, moderators, and mediators of Parent Management Training and Collaborative and Proactive Solutions for children with oppositional defiant disorder.[*Unpublished doctoral dissertation]. University of Technology Sydney.

De Los Reyes, A., Augenstein, T. M., Wang, M., Thomas, S. A., Drabick, D. A. G., Burgers, D. E., Rabinowitz, J., & Albarracín, D. (2015). The validity of the multi-informant approach to assessing child and adolescent mental health. *Psychological Bulletin*, *141*(4), 858–900. https://doi.org/10.1037/a0038498

Demmer, D. H., Hooley, M., Sheen, J., McGillivray, J. A., & Lum, J. A. G. (2017). Sex differences in the prevalence of oppositional defiant disorder during middle childhood: a meta-analysis. *Journal of Abnormal Child Psychology*, *45*(2), 313–325. https://doi.org/10.1007/s10802-016-0170-8

Déry, M., Lapalme, M., Jagiellowicz, J., Poirier, M., Temcheff, C., & Toupin, J. (2017). Predicting depression and anxiety from oppositional defiant disorder symptoms in elementary school-age girls and boys with conduct problems. *Child Psychiatry and Human Development*, *48*(1), 53–62. https://doi.org/10.1007/s10578-016-0652-5

Diaz-Stransky, A., Rowley, S., Zecher, E., Grodberg, D., & Sukhodolsky, D. G. (2020). Tantrum tool: development and open pilot study of online parent training for irritability and disruptive behavior. *Journal of Child and Adolescent Psychopharmacology, 30(9),* 558-566. https://doi.org/10.1089/cap.2020.0089

Drabick, D. A. G., Gadow, K. D., & Loney, J. (2007). Source-specific oppositional defiant disorder: comorbidity and risk factors in referred elementary schoolboys. *Journal of*

the American Academy of Child and Adolescent Psychiatry, *46*(1), 92–101. https://doi.org/10.1097/01.chi.0000242245.00174.90

Dumas, J. E., Nissley-Tsiopinis, J., & Moreland, A. D. (2007). From intent to enrollment, attendance, and participation in preventive parenting groups. *Journal of Child and Family Studies*, *16*(1), 1–26. https://doi.org/10.1007/s10826-006-9042-0

Enebrink, P., Högström, J., Forster, M., & Ghaderi, A. (2012). Internet-based parent management training: A randomized controlled study. *Behaviour Research and Therapy*, *50*(4), 240–249. https://doi.org/10.1016/j.brat.2012.01.006

Evans, S. C., Burke, J. D., Roberts, M. C., Fite, P. J., Lochman, J. E., de la Peña, F. R., & Reed, G. M. (2017). Irritability in child and adolescent psychopathology: An integrative review for ICD-11. *Clinical Psychology Review*, *53*, 29–45. https://doi.org/10.1016/j.cpr.2017.01.004

Eyberg, S. M. (1992). Assessing therapy outcome with preschool children: Progress and problems. *Journal of Clinical Child and Adolescent* Psychology, 21(3), 306-311. https://doi.org/10.1207/s15374424jccp2103_10

Eyberg, S. M., Nelson, M. M., & Boggs, S. R. (2008). Evidence-based psychosocial treatments for children and adolescents with disruptive behavior. *Journal of Clinical Child and Adolescent Psychology*, *37*(1), 215–237. https://doi.org/10.1080/15374410701820117

Eyberg, S. M., Bussing, R. (2010). Parent-child interaction therapy for preschool children with conduct problems. In R.C. Murrihy; Kidman, A. D. & Ollendick, T. H (Eds.), *Clinical handbook of assessing and treating conduct problems in youth* (pp. 139 – 162). Springer. https://doi.org/10.1007/978-1-4419-6297-3_6

Ezpeleta, L., de la Osa, N., Granero, R., & Trepat, E. (2014). Functional impairment associated with symptoms of oppositional defiant disorder in preschool and early

school boys and girls from the general population. *Anales de Psicología*, *30*(2), 395–402. https://doi.org/10.6018/analesps.30.2.148141

Ezpeleta, L., Navarro, J. B., de la Osa, N., Penelo, E., & Domènech, J. M. (2019). First incidence, age of onset outcomes and risk factors of onset of DSM-5 oppositional defiant disorder: a cohort study of Spanish children from ages 3 to 9. *BMJ Open*, *9*(3). https://doi.org/10.1136/bmjopen-2018-022493

Fefer, S. A., Donnelly, M., & Santana, Z. A. (2022). Pilot implementation of school-based behavioral parent training: Outcomes and acceptability. *Journal of Child and Family Studies, 31*(1), 260–275. https://doi.org/10.1007/s10826-021-02117-9

Fernandez, M. A., & Eyberg, S. M. (2009). Predicting treatment and follow-up attrition in parent–child interaction therapy. *Journal of Abnormal Child Psychology*, *37*(3), 431–441. https://doi.org/10.1007/s10802-008-9281-1

Fisher, P. A., & Gilliam, K. S. (2012). Research into theory into practice: an overview of family based interventions for child antisocial behavior developed at the Oregon Social Learning Center. *Clinica y Salud, 23(3),* 247. https://doi.org/10.5093/cl2012a16

Fleming, G. E., Neo, B., Briggs, N. E., Kaouar, S., Frick, P. J., & Kimonis, E. R. (2022). Parent training adapted to the needs of children with callous–unemotional traits: A randomized controlled trial. *Behavior Therapy*, *53*(6), 1265–1281. https://doi.org/10.1016/j.beth.2022.07.001

Forehand, R., & McMahon, R. J. (1981). Helping the Noncompliant Child: A clinician's guide to parent training. New York: Guilford Press.

Forehand, R., Lafko, N., Parent, J., & Burt, K. B. (2014). Is parenting the mediator of change in behavioral parent training for externalizing problems of youth? *Clinical Psychology Review, 34*(8), 608–619. https://doi.org/ 10.1016/j.cpr.2014.10.001

Foster, E. M., Jones, D. E., and The Conduct Problems Prevention Research Group. (2005). The high costs of aggression: public expenditures resulting from conduct disorder. *American Journal of Public Health*, *95*(10), 1767–1772. https://doi.org/10.2105/AJPH.2004.061424

Foster, E. M. (2010). Evidence-based treatment programs for conduct problems: Are they cost effective? In R. C. Murrihy, T. Ollendick, & A. Kidman (Eds.), *Clinical handbook of assessing and treating conduct problems in youth (pp. 489–515).* Springer. https://doi.org/10.1007/978-1-4419-6297-3_19

Frick, P. J., & Nigg, J. T. (2012). Current issues in the diagnosis of attention deficit hyperactivity disorder, oppositional defiant disorder, and conduct disorder. *Annual Review of Clinical Psychology*, *8*, 77–107. https://doi.org/10.1146/annurev-clinpsy-032511-143150

Frick, P. J., Ray, J. V., Thornton, L. C., & Kahn, R. E. (2014). Can callous-unemotional traits enhance the understanding, diagnosis, and treatment of serious conduct problems in children and adolescents? A comprehensive review. *Psychological Bulletin*, *140*(1), 1–57. https://doi.org/10.1037/a0033076

Furman, W., & Giberson, R. S. (1995). Identifying the links between parents and their children's sibling relationships. In S. Shulman (Ed.), *Close relationships and socioemotional development* (pp. 95–108). Ablex Publishing.

Green, P., MacLeod, C. J., Nakagawa, S., & Nakagawa, S. (2016). SIMR: an R package for power analysis of generalized linear mixed models by simulation. *Methods in Ecology and Evolution*, *7*(4), 493–498. https://doi.org/10.1111/2041-210X.12504

Greene, R. W. (1998). *The explosive child: A new approach for understanding and parenting easily frustrated, chronically inflexible children.* HarperCollins Publishers.

Greene, R. W., Biederman, J., Zerwas, S., Monuteaux, M. C., Goring, J. C., & Faraone, S. V.

(2002). Psychiatric comorbidity, family dysfunction, and social impairment in referred youth with oppositional defiant disorder. *American Journal of Psychiatry, 159(7),* 1214-1224. https://doi.org/10.1176/appi.ajp.159.7.1214

Greene, R. W., Ablon, J. S., & Goring, J. C. (2003). A transactional model of oppositional behavior: Underpinnings of the Collaborative Problem Solving approach. *Journal of Psychosomatic Research*, *55*(1), 67–75. https://doi.org/10.1016/S0022-3999(02)00585-8

Greene, R. W., Ablon, J. S., Monuteaux, M. C., Goring, J. C., Henin, A., Raezer-Blakely, L., Edwards, G., Markey, J., & Rabbitt, S. (2004). Effectiveness of Collaborative Problem Solving in affectively dysregulated children with oppositional-defiant disorder: initial findings. *Journal of Consulting and Clinical Psychology*, *72*(6), 1157–1164. https://doi.org/10.1037/0022-006X.72.6.1157

Greene, R. W. (2010). Collaborative Problem Solving. In R. Murrihy, A. Kidman, & T. Ollendick (Eds.), *A clinician's handbook of assessing and treating conduct problems in youth* (pp. 193-220). Springer Publishing. http://dx.doi.org/10.1007/978-1-4419-6297-3

Greene, R., & Winkler, J. (2019). Collaborative & Proactive Solutions (CPS): A review of research findings in families, schools, and treatment facilities. *Clinical Child and Family Psychology Review*, *22*(4), 549–561. https://doi.org/10.1007/s10567-019-00295-z

Greene, R. W. (2023). Collaborative and proactive solutions. In L. J. Farrell, R. C. Murrihy, & C. A. Essau (Eds.), *Handbook of child and adolescent psychology treatment modules* (pp. 291–303). Academic Press. https://doi.org/10.1016/B978-0-323-99613-6.00007-7

Guy, W. (1976). *ECDEU assessment manual for psychopharmacology.* U.S. National

Institute of Health, PsychoPharmacology Research Branch. https://ia800200.us.archive.org/19/items/ecdeuassessmentm1933guyw/ecdeuassessmentm1933guyw.pdf

Hanf, C., & Kling, J. (1973). Facilitating parent-child interaction: A two-stage training model. *Unpublished manuscript, University of Oregon Medical School*.

Harada, Y., Saitoh, K., Iida, J., Sakuma, A., Iwasaka, H., Imai, J., Hirabayashi, M., Yamada, S., Hirabayashi, S., Uchiyama, T., Ohta, S., & Amano, N. (2004). The reliability and validity of the oppositional defiant behavior inventory. *European Child & Adolescent Psychiatry*, *13*(3), 185–190. https://doi.org/10.1007/s00787-004-0376-0

Hawes, D. J., Price, M. J., & Dadds, M. R. (2014). Callous-unemotional traits and the treatment of conduct problems in childhood and adolescence: A comprehensive *review. Clinical Child and Family Psychology Review, 17, 248-267.* https://doi.org/10.1007/s10567-014-0167-1

Hawes, D. J., Gardner, F., Dadds, M. R., Frick, P. J., Kimonis, E. R., Burke, J. D., & Fairchild, G. (2023). Oppositional defiant disorder. *Nature Reviews. Disease Primers*, *9*(1), 31–31. https://doi.org/10.1038/s41572-023-00441-6

Herschell, A. D., Calzada, E. J., Eyberg, S. M., & McNeil, C. B. (2002). Parent-child interaction therapy: New directions in research. *Cognitive and Behavioral Practice*, *9*(1), 9–16. https://doi.org/10.1016/S1077-7229(02)80034-7

Ho, J. K., McCabe, K. M., Yeh, M., Lau (2010). . In R.C. Murrihy; Kidman, A. D. & Ollendick, T. H (Eds.), *Clinical handbook of assessing and treating conduct problems in youth* (pp. 455-488). Springer. https://doi.org/10.1007/978-1-4419-6297-3_18

Hood, K. K., & Eyberg, S. M. (2003). Outcomes of Parent-Child Interaction Therapy: mothers' reports of maintenance three to six years after treatment. *Journal of*

Clinical Child and Adolescent Psychology, *32*(3), 419–429. https://doi.org/10.1207/S15374424JCCP3203_10

Hood, B. S., Elrod, M. G., & DeWine, D. B. (2015). Treatment of childhood oppositional defiant disorder. *Current Treatment Options in Pediatrics, 1*, 155-167. https://doi.org /10.1007/s40746-015-0015-7

Hunsley, J., & Lee, C. M. (2007). Informed benchmarks for psychological treatments: Efficacy studies, effectiveness studies, and beyond. *Professional Psychology: Research and Practice, 38(1)*, 21. https://psycnet.apa.org/doi/10.1037/0735-7028.38.1.21

Hunsley, J., Elliott, K., & Therrien, Z. (2014). The efficacy and effectiveness of psychological treatments for mood, anxiety, and related disorders. *Canadian Psychology/Psychologie Canadienne, 55*(3), 161–176 https://doi.org/10.1037/a0036933

Johnston, C., Hommersen, P., & Seipp, C. (2008). Acceptability of behavioral and pharmacological treatments for attention-deficit/hyperactivity disorder: Relations to child and parent characteristics. *Behavior Therapy, 39(1)*, 22-32. https://doi.org/10.1016/j.beth.2007.04.002

Jones, M. L., Eyberg, S. M., Adams, C. D., & Boggs, S. R. (1998). Treatment acceptability of behavioral interventions for children: An assessment by mothers of children with disruptive behavior disorders. *Child & Family Behavior Therapy, 20(4),* 15–26. https://doi.org/10.1300/J019v20n04_02

Jugovac, S., O'Kearney, R., Hawes, D. J., & Pasalich, D. S. (2022). Attachment-and emotion-focused parenting interventions for child and adolescent externalizing and internalizing behaviors: A meta-analysis. *Clinical Child and Family Psychology Review, 25(4),* 754-773.

Kaehler, L. A., Jacobs, M., & Jones, D. J. (2016). Distilling common history and practice elements to inform dissemination: Hanf-Model BPT programs as an example. *Clinical Child and Family Psychology Review*, *19*(3), 236–258. https://doi.org/10.1007/s10567-016-0210-5

Kaminski, J. W., & Claussen, A. H. (2017). Evidence base update for psychosocial treatments for disruptive behaviors in children. *Journal of Clinical Child and Adolescent Psychology*, *46*(4), 477–499. https://doi.org/10.1080/15374416.2017.1310044

Kaminski, J. W., Claussen, A. H., Sims, R. S., & Bhupalam, S. (2024). Evidence-based psychosocial treatments for disruptive behaviors in children: Update. *Journal of Clinical Child and Adolescent Psychology*, 1–30. https://doi.org/10.1080/15374416.2024.2405988

Kanter, J. W., Santiago-Rivera, A. L., Santos, M. M., Nagy, G., López, M., Hurtado, G. D., & West, P. (2015). A randomized hybrid efficacy and effectiveness trial of behavioral activation for Latinos. *Behavior Therapy, 46(2)*, 177-192. https://doi.org/10.1016/j.beth.2014.09.011

Kaur, M., Floyd, A., & Balta, A. M. (2022). Oppositional defiant disorder: Evidence-based review of behavioral treatment programs. *Annals of Clinical Psychiatry: official journal of the American Academy of Clinical Psychiatrists*, *34*(1), 44–58. https://doi.org/10.12788/acp.0056

Kazdin, A. E. (1977). Assessing the clinical or applied importance of behavior change through social validation. *Behavior modification, 1(4),* 427-452. https://doi.org/10.1177/014544557714001

Kazdin, A.E. (1980a). Acceptability of alternative treatments for deviant child behavior. *Journal of Applied Behavior Analysis*, *13*(2), 259–273. https://doi.org/10.1901/jaba.1980.13-259

Kazdin, A. E. (1980b). Acceptability of time out from reinforcement procedures for disruptive child behavior. *Behavior Therapy, 11*(3), 329–344. https://doi.org/10.1016/S0005-7894(80)80050-5

Kazdin, A. E. (1981). Acceptability of child treatment techniques: The influence of treatment efficacy and adverse side effects. *Behavior Therapy, 12(4),* 493–506. https://doi.org/10.1016/S0005-7894(81)80087-1

Kazdin, A. E. (1990). Premature termination from treatment among children referred for antisocial behavior. *Journal of Child Psychology and Psychiatry*, *31*(3), 415–425. https://doi.org/10.1111/j.1469-7610.1990.tb01578.x

Kazdin, A. E., Mazurick, J. L., & Bass, D. (1993). Risk for attrition in treatment of antisocial children and families. *Journal of Clinical Child Psychology*, *22*(1), 2–16. https://doi.org/10.1207/s15374424jccp2201_1

Kazdin, A. E., Holland, L., Crowley, M., & Breton, S. (1997a). Barriers to treatment participation scale: Evaluation and validation in the context of child outpatient treatment. *Journal of Child Psychology and Psychiatry*, *38*(8), 1051–1062. https://doi.org/10.1111/j.1469-7610.1997.tb01621.x

Kazdin, A. E., Holland, L., & Crowley, M. (1997b). Family experience of barriers to treatment and premature termination from child therapy. *Journal of Consulting and Clinical Psychology*, *65*(3), 453–463. https://doi.org/10.1037//0022-006x.65.3.453

Kazdin, A. E. (2000). Perceived barriers to treatment participation and treatment acceptability among antisocial children and their families. *Journal of Child and Family Studies*, *9*(2), 157–174. https://doi.org/10.1023/A:1009414904228

Kazdin, A. E. (2005). *Parent management training: Treatment for oppositional, aggressive, and antisocial behavior in children and adolescents.* Oxford University Press.

Keenan, K., & Wakschlag, L. S. (2004). Can a valid diagnosis of disruptive behavior disorder be made in preschool children? *The American Journal of Psychiatry*, *159*(3), 351–358. https://doi.org/10.1176/appi.ajp.159.3.351

Keenan, K., Boeldt, D., Chen, D., Coyne, C., Donald, R., Duax, J., Hart, K., Perrott, J., Strickland, J., Danis, B., Hill, C., Davis, S., Kampani, S., & Humphries, M. (2011). Evidence for the predictive validity of DSM-IV oppositional defiant and conduct disorders diagnosed in a clinically referred sample of preschoolers. *Journal of Child Psychology and Psychiatry*, *52*(1), 47–55. https://doi.org/10.1111/j.1469-7610.2010.02290.x

Kessler, R. C., Avenevoli, S., Costello, E. J., Georgiades, K., Green, J. G., Gruber, M. J., He, J. P., Koretz, D., McLaughlin, K. A., Petukhova, M., Sampson, N. A., Zaslavsky, A. M., & Merikangas, K. R. (2012). Prevalence, persistence, and sociodemographic correlates of DSM-IV disorders in the National Comorbidity Survey Replication Adolescent Supplement. *Archives of General Psychiatry*, *69*(4), 372–380. https://doi.org/10.1001/archgenpsychiatry.2011.160

Kimonis, E. R., Fleming, G. E., & Murrihy, R. C. (2023). Disruptive behavior disorders. In L.J. Farrell, R. C. Murrihy, & Essau, C. A. *Handbook of Child and Adolescent Psychology Treatment Modules (*pp, 205-226). Academic Press. https://doi.org/10.1016/B978-0-323-99613-6.00017-X

Kjøbli, J., Hukkelberg, S., & Ogden, T. (2013). A randomized trial of group parent training: reducing child conduct problems in real-world settings. *Behaviour Research and Therapy*, *51*(3), 113–121. https://doi.org/10.1016/j.brat.2012.11.006

Kohlhoff, J., Cibralic, S., Horswood, D., Turnell, A., Maiuolo, M., & Morgan, S. (2020).

Feasibility and acceptability of internet-delivered parent-child interaction therapy for rural Australian families: A qualitative investigation. *Rural and Remote Health, 20(1),* 147–155. https://search.informit.org/doi/10.3316/informit.152790382943692

Korsch, F., & Petermann, F. (2014). Agreement between parents and teachers on preschool children's behavior in a clinical sample with externalizing behavioral problems. *Child Psychiatry and Human Development*, *45*(5), 617–627. https://doi.org/10.1007/s10578-013-0430-6

Krain, A. L., Kendall, P. C., & Power, T. J. (2005). The role of treatment acceptability in the initiation of treatment for ADHD. *Journal of Attention Disorders, 9*(2), 425–434. https://doi.org/10.1177/1087054705279996

Kwasnicka, D., Dombrowski, S. U., White, M., & Sniehotta, F. (2016). Theoretical explanations for maintenance of behaviour change: a systematic review of behaviour theories. *Health Psychology Review*, *10*(3), 277–296. https://doi.org/10.1080/17437199.2016.1151372

Lavigne, J. V., LeBailly, S. A., Gouze, K. R., Binns, H. J., Keller, J., & Pate, L. (2010). Predictors and correlates of completing behavioral parent training for the treatment of oppositional defiant disorder in pediatric primary care. *Behavior Therapy*, *41*(2), 198–211. https://doi.org/10.1016/j.beth.2009.02.006

Lavigne, J. V., Dahl, K. P., Gouze, K. R., LeBailly, S. A., & Hopkins, J. (2015). Multi-domain predictors of oppositional defiant disorder symptoms in preschool children: cross-informant differences. *Child Psychiatry and Human Development*, *46*(2), 308–319. https://doi.org/10.1007/s10578-014-0472-4

Lawrence, D., Johnson, S., Hafekost, J., Boterhoven De Haan, K., Sawyer, M., Ainley, J., & Zubrick, S. (2015). *The mental health of children and adolescents. Report on the*

second Australian child and adolescent survey of mental health and wellbeing. Australian Government Department of Health.

Leadbeater, B. J., Homel, J. (2015). Irritable and defiant sub-dimensions of ODD: Their stability and prediction of internalizing symptoms and conduct problems from adolescence to young adulthood. *Journal of Abnormal Child Psychology, 43*(3). https://doi.org/10.1007/s10802-014-9908-3

Leadbeater, B. J., & Ames, M. E. (2017). The longitudinal effects of oppositional defiant disorder symptoms on academic and occupational functioning in the transition to young adulthood. *Journal of Abnormal Child Psychology*, *45*(4), 749–763. https://doi.org/10.1007/s10802-016-0190-4

Lee, C. M., Horvath, C., & Hunsley, J. (2013). Does it work in the real world? The effectiveness of treatments for psychological problems in children and adolescents. *Professional Psychology, Research and Practice*, *44*(2), 81–88. https://doi.org/10.1037/a0031133

Leijten, P., Raaijmakers, M. A., de Castro, B. O., & Matthys, W. (2013). Does socioeconomic status matter? A meta-analysis on parent training effectiveness for disruptive child behavior. *Journal of Clinical Child & Adolescent Psychology, 42(3),* 384-392. https://doi.org/10.1080/15374416.2013.769169

Leijten, P., Gardner, F., Melendez-Torres, G. J., Van Aar, J., Hutchings, J., Schulz, S., Kneer, W & Overbeek, G. (2019). Meta-analyses: Key parenting program components for disruptive child behavior. *Journal of the American Academy of Child & Adolescent Psychiatry, 58(2)*, 180-190. https://doi.org/10.1016/j.jaac.2018.07.900

Lieneman, C., Williford, D. N., Quetsch, L. B., Thomas, B., & McNeil, C. B. (2018). Behavioral treatments. In M. M. Martel (Ed.), *Developmental pathways to disruptive,*

impulse-control, and conduct disorders (pp. 211–237). Elsevier Academic Press. https://doi.org/10.1016/B978-0-12-811323-3.00009-2

Lindsey, M. A., Brandt, N. E., Becker, K. D., Lee, B. R., Barth, R. P., Daleiden, E. L., & Chorpita, B. F. (2014). Identifying the common elements of treatment engagement interventions in children's mental health services. *Clinical Child and Family Psychology Review*, *17*(3), 283–298. https://doi.org/10.1007/s10567-013-0163-x

Loeber, R., Burke, J. D., & Pardini, D. A. (2009). Development and etiology of disruptive and delinquent behavior. *Annual Review of Clinical Psychology*, *5*(1), 291–310. https://doi.org/10.1146/annurev.clinpsy.032408.153631

Lundahl, B., Risser, H. J., & Lovejoy, M. C. (2006). A meta-analysis of parent training: Moderators and follow-up effects. *Clinical Psychology Review*, *26*(1), 86–104. https://doi.org/10.1016/j.cpr.2005.07.004

Malik, T. A., & Tariq, N. (2014). Parent training in reduction of attention-deficit/hyperactivity disorder and oppositional defiant disorder symptoms in children. *Pakistan Journal of Psychological Research, 29(1),* 151.

Malik, T. A., Rooney, M., Chronis-Tuscano, A., & Tariq, N. (2017). Preliminary efficacy of a Behavioral Parent Training program for children with ADHD in Pakistan. *Journal of Attention Disorders, 21(5),* 390-404. https://doi.org/10.1177/1087054714524158

Manly, C. A., & Wells, R. S. (2015). Reporting the use of multiple imputation for missing data in higher education research. *Research in Higher Education*, *56*(4), 397-409. https://doi.org/10.1007/s11162-014-9344-9

Maric, M., Prins, P. J., & Ollendick, T. H. (Eds.). (2015). *Moderators and mediators of youth treatment outcomes*. Oxford University Press.

Maughan, B., Rowe, R., Messer, J., Goodman, R., & Meltzer, H. (2004). Conduct disorder

and oppositional defiant disorder in a national sample: developmental epidemiology. *Journal of Child Psychology and Psychiatry, 45(3),* 609-621. https://doi.org/10.1111/j.1469-7610.2004.00250.x

McHugh, R. K., Whitton, S. W., Peckham, A. D., Welge, J. A., & Otto, M. W. (2013). Patient preference for psychological vs pharmacologic treatment of psychiatric disorders: A meta-analytic review. *The Journal of Clinical Psychiatry*, *74*(6), 595–602. https://doi.org/10.4088/JCP.12r07757

McMahon, R. J., & Forehand, R. L. (1983). Consumer satisfaction in behavioral treatment of children: Types, issues, and recommendations. *Behavior Therapy, 14(2),* 209-225. https://doi.org/10.1016/S0005-7894(83)80111-7

McMahon, R. J., Long, N., Forehand, R. L. (2010). Parent training for the treatment of oppositional behavior in young children: helping the noncompliant child. In R.C. Murrihy, A. D. Kidman, & T. H. Ollendick. (Ed.), *Clinical handbook of assessing and treating conduct problems in youth* (pp. 163–191). Springer. https://doi.org/10.1007/978-1-4419-6297-3_7

McMahon, R. J., Goulter, N., & Frick, P. J. (2021). Moderators of psychosocial intervention response for children and adolescents with conduct problems. *Journal of Clinical Child and Adolescent Psychology*, *50*(4), 525–533. https://doi.org/10.1080/15374416.2021.1894566

Menting, A. T., Orobio de Castro, B., & Matthys, W. (2013). Effectiveness of the Incredible Years parent training to modify disruptive and prosocial child behavior: a meta-analytic review. *Clinical Psychology Review*, *33*(8), 901–913. https://doi.org/10.1016/j.cpr.2013.07.006

Merikangas, K. R., He, J. P., Burstein, M., Swendsen, J., Avenevoli, S., Case, B., Georgiades, K., Heaton, L., Swanson, S., & Olfson, M. (2011). Service utilization for lifetime

mental disorders in U.S. adolescents: Results of the national comorbidity survey Adolescent supplement (NCS-A). *Journal of the American Academy of Child and Adolescent Psychiatry*, *50*(1), 32–45. https://doi.org/10.1016/j.jaac.2010.10.006

Messer, J., Goodman, R., Rowe, R., Meltzer, H., & Maughan, B. (2006). Preadolescent conduct problems in girls and boys. *Journal of the American Academy of Child and Adolescent Psychiatry*, *45*(2), 184–191. https://doi.org/10.1097/01.chi.0000186403.13088.d8

Meyer, J. M., Farrell, N. R., Kemp, J. J., Blakey, S. M., & Deacon, B. J. (2014). Why do clinicians exclude anxious clients from exposure therapy? *Behaviour Research and Therapy*, *54*(1), 49–53. https://doi.org/10.1016/j.brat.2014.01.004

Michelson, D., Davenport, C., Dretzke, J., Barlow, J., & Day, C. (2013). Do evidence-based interventions work when tested in the "real world?" A systematic review and meta-analysis of Parent Management Training for the treatment of child disruptive behavior. *Clinical Child and Family Psychology Review*, *16*(1), 18–34. https://doi.org/10.1007/s10567-013-0128-0

Miller, G. E., & Prinz, R. J. (2003). Engagement of families in treatment for childhood conduct problems: Behaviorally oriented interventions for children with aggressive behavior and/or conduct problems. *Behavior Therapy*, *34*(4), 517–534. https://doi.org/10.1016/S0005-7894(03)80033-3

Miller-Slough, R. L., Dunsmore, J. C., Ollendick, T. H., & Greene, R. W. (2016). Parent–child synchrony in children with oppositional defiant disorder: Associations with treatment outcomes. *Journal of Child and Family Studies*, *25*(6), 1880–1888. https://doi.org/10.1007/s10826-015-0356-7

Milosevic, I., Levy, H. C., Alcolado, G. M., & Radomsky, A. S. (2015). The Treatment Acceptability/Adherence Scale: Moving beyond the assessment of treatment

effectiveness. *Cognitive Behaviour Therapy*, *44*(6), 456–469. https://doi.org/10.1080/16506073.2015.1053407

Mischel, W., Shoda, Y., & Rodriguez, M. L. (1989). Delay of gratification in children. *Science (American Association for the Advancement of Science)*, *244*(4907), 933–938. https://doi.org/10.1126/science.2658056

Moffitt, T. E., Arseneault, L., Jaffee, S. R., Kim-Cohen, J., Koenen, K. C., Odgers, C. L., Slutske, W. S., & Viding, E. (2008). Research review: DSM-V conduct disorder: research needs for an evidence base. *Journal of Child Psychology and Psychiatry*, *49*(1), 3–33. https://doi.org/10.1111/j.1469-7610.2007.01823.x

Mohammadi, M. R., Salmanian, M., Hooshyari, Z., Shakiba, A., Alavi, S. S., Ahmadi, A., Khaleghi, A., Zarafshan, H., Mostafavi, S. A., Alaghmand, A., Molavi, P., Mahmoudi-Gharaei, J., Kamali, K., Ghanizadeh, A., Nazari, H., Sarraf, N., Ahmadipour, A., Derakhshanpour, F., Riahi, F…Ahmadi, N. (2020). Lifetime prevalence, sociodemographic predictors, and comorbidities of oppositional defiant disorder: the National Epidemiology of Iranian Child and Adolescent Psychiatric disorders (IRCAP). *Revista Brasileira de Psiquiatria*, *42*(2), 162–167. https://doi.org/10.1590/1516-4446-2019-0416.

Mulraney, M., Sciberras, E., Payne, J. M., De Luca, C., Mills, J., Tennant, M., & Coghill, D. (2022). Collaborative and Proactive Solutions compared with usual care to treat irritability in children and adolescents: a pilot randomized controlled trial. *Clinical Psychologist (Australian Psychological Society)*, *26*(2), 231–239. https://doi.org/10.1080/13284207.2022.2041983

Munkvold, L., Lundervold, A., Lie, S. A., & Manger, T. (2009). Should there be separate parent and teacher-based categories of ODD? Evidence from a general population. *Journal of Child Psychology and Psychiatry, and Allied*

Disciplines, *50*(10), 1264–1272. https://doi.org/10.1111/j.1469-7610.2009.02091.x

Munkvold, L. H., Lundervold, A. J., & Manger, T. (2011). Oppositional defiant disorder-gender differences in co-occurring symptoms of mental health problems in a general population of children. *Journal of Abnormal Child Psychology*, *39*(4), 577–587. https://doi.org/10.1007/s10802-011-9486-6

Murrihy, R. C., Kidman, A. D., & Ollendick, T. H. (Eds.). (2010). *Clinical handbook of assessing and treating conduct problems in youth*. New York: Springer.

Murrihy, R. C., Burns, J. R., Reinke, W. M., Herman, K. C., King, K. R. (2017) Evidence-based assessment and intervention for oppositional defiant disorder and conduct disorder in school psychology. In M. M. Thielking, & M. D, Terjesen (2017). *Handbook of Australian school psychology (*pp. 331–347). Springer International Publishing AG. https://doi.org/10.1007/978-3-319-45166-4_17

Murrihy, R. C., Drysdale, S. A., Dedousis-Wallace, A., McAloon, J., & Ollendick, T. H. (2024). Innovative approaches in practice: treatment acceptability of Collaborative and Proactive Solutions for oppositional youth. *Submitted to Behavior Therapy.* Revise and resubmit.

Murrihy, R. C., Drysdale, S. A. O., Dedousis-Wallace, A., Rémond, L., McAloon, J., Ellis, D. M., Halldorsdottir, T., Greene, R. W., & Ollendick, T. H. (2023). Community-delivered Collaborative and Proactive Solutions and Parent Management Training for oppositional youth: A randomized trial. *Behavior Therapy*, *54*(2), 400–417. https://doi.org/10.1016/j.beth.2022.10.005

Niec, L. N., Barnett, M. L., Prewett, M. S., & Shanley Chatham, J. R. (2016). Group Parent-Child Interaction Therapy: A randomized control trial for the treatment of conduct problems in young children. *Journal of Consulting and Clinical Psychology*, *84*(8), 682–698. https://doi.org/10.1037/a0040218

Nock, M. K., & Ferriter, C. (2005). Parent management of attendance and adherence in child and adolescent therapy: A conceptual and empirical review. *Clinical Child and Family Psychology Review*, *8*(2), 49–166. https://doi.org/10.1007/s10567-005-4753-0

Nock, M. K., & Kazdin, A. E. (2005). Randomized controlled trial of a brief intervention for increasing participation in Parent Management Training. *Journal of Consulting and Clinical Psychology*, *73*(5), 872–879. https://doi.org/10.1037/0022-006X.73.5.872

Nock, M. K., Kazdin, A. E., Hiripi, E., & Kessler, R. C. (2007). Lifetime prevalence, correlates, and persistence of oppositional defiant disorder: Results from the National Comorbidity Survey Replication. *Journal of Child Psychology and Psychiatry, 48(7)*, 703-713. https://doi.org/10.1111/j.1469-7610.2007.01733.x

Ogden, T., & Hagen, K. A. (2008). Treatment effectiveness of Parent Management Training in Norway: a randomized controlled trial of children with conduct problems. *Journal of Consulting and Clinical Psychology, 76(4)*, 607. https://psycnet.apa.org/doi/10.1037/0022-006X.76.4.607

Ollendick, T. H., Greene, R. W., Austin, K. E., Fraire, M. G., Halldorsdottir, T., Allen, K. B., Jarrett, M. A., Lewis, K. M., Whitmore Smith, M., Cunningham, N. R., Noguchi, R. J. P., Canavera, K., & Wolff, J. C. (2016). Parent Management Training and Collaborative & Proactive Solutions: A randomized control trial for oppositional youth. *Journal of Clinical Child and Adolescent Psychology*, *45*(5), 591–604. https://doi.org/10.1080/15374416.2015.1004681

Ollendick, T. H., Muris, P., & Essau, C. A. (2017). Evidence-based treatments: The debate. *Clinical Psychology: A Global Perspective*, 119-131.

Ollendick, T. H., Booker, J. A., Ryan, S., & Greene, R. W. (2018). Testing multiple conceptualizations of oppositional defiant disorder in youth. *Journal of Clinical*

Child and Adolescent Psychology, *47*(4), 620–633. https://doi.org/10.1080/15374416.2017.1286594

Patterson, G. R. (1982). *A social learning approach: Vol. 3: Coercive family process*. Eugene: Castalia.

Patterson, G. (2005). The next generation of PMTO models. *The Behavior Therapist: ABCT:* 28(2): 25-32. https://pmto.nl/documenten/nextgeneration.pdf

Pelham, W. E., Gnagy, E. M., Greenslade, K. E., & Milich, R. (1992). Teacher ratings of DSM-III-R symptoms for the disruptive behavior disorders. *Journal of the American Academy of Child and Adolescent Psychiatry*, *31*(2), 210–218. https://doi.org/10.1097/00004583-199203000-00006

Polanczyk, G. V., Salum, G. A., Sugaya, L. S., Caye, A., & Rohde, L. A. (2015). Annual research review: A meta-analysis of the worldwide prevalence of mental disorders in children and adolescents. *Journal of Child Psychology and Psychiatry*, *56*(3), 345–365. https://doi.org/10.1111/jcpp.12381

Prins, P., Ollendick, T. H., Maric, M., & MacKinnon, D. P. (2015). Moderators and mediators in treatment outcome studies of childhood disorders: The what, why, and how. In M. Maric, P. J. M. Prins, & T. T. Ollendick (Eds.), *Moderators and mediators of youth treatment outcomes* (pp. 1–19). Oxford University Press Incorporated.

Prinz, R. J., & Miller, G. E. (1994). Family-based treatment for childhood antisocial behavior: Experimental influences on drop out and engagement. *Journal of Consulting and Clinical Psychology, 62*(3), 645–650. https://doi.org/10.1037/0022-006X.62.3.645

Querido, J. G., Warner, T. D., & ne

, S. M. (2002). Parenting styles and child behavior in African American families of preschool children. *Journal of Clinical Child and Adolescent Psychology*, *31*(2), 272–277. https://doi.org/10.1207/S15374424JCCP3102_12

Rabbitt, S. M., Kazdin, A. E., & Hong, J. E. (2014). Acceptability of animal-assisted therapy: Attitudes toward AAT, psychotherapy, and medication for the treatment of child disruptive behavioral problems. *Anthrozoös*, *27*(3), 335–350. https://doi.org/10.2752/175303714X13903827487881

Rahmqvist, J., Wells, M. B., & Sarkadi, A. (2014). Conscious parenting: A qualitative study on Swedish parents' motives to participate in a parenting program. *Journal of Child and Family Studies*, *23*(5), 934–944. https://doi.org/10.1007/s10826-013-9750-1

Raudenbush, S. W. (2019). Hlm 8: *Hierarchical linear and nonlinear modeling (Version 8).* Scientific Software International, Inc. https://ssicentral.com/wp-content/uploads/2020/07/HLM_Guide.pdf

Reale, L., Bartoli, B., Cartabia, M., Zanetti, M., Costantino, M. A., Canevini, M. P., Termine, C., & Bonati, M. (2017). Comorbidity prevalence and treatment outcome in children and adolescents with ADHD. *European Child & Adolescent Psychiatry*, *26*(12), 1443–1457. https://doi.org/10.1007/s00787-017-1005-z

Reimers, T. M., Wacker, D. P., Cooper, L. J., & DeRaad, A. O. (1992). Clinical evaluation of the variables associated with treatment acceptability and their relation to compliance. *Behavioral Disorders, 18*(1), 67–76. https://doi.org/10.1177/019874299201800108

Reitman, D., & McMahon, R. J. (2013). Constance "Connie" Hanf (1917–2002): The mentor and the model. *Cognitive and Behavioral Practice*, *20*(1), 106–116. https://doi.org/10.1016/j.cbpra.2012.02.005

Reyno, S. M., & McGrath, P. J. (2006). Predictors of parent training efficacy for child externalizing behavior problems - a meta-analytic review. *Journal of Child Psychology and Psychiatry*, *47*(1), 99–111. https://doi.org/10.1111/j.1469-7610.2005.01544.x

Rimestad, M. L., O'Toole, M. S., & Hougaard, E. (2020). Mediators of change in a parent training program for early ADHD difficulties. *Journal of Attention Disorders, 24*(14), 1966–1976. https://doi.org/10.1177/1087054717733043

Roberts, M. W. (2008). Parent training. In M. Hersen & A. M. Gross (Eds.), *Handbook of clinical psychology, Volume 2. Children and adolescents* (pp. 653–693). John Wiley & Sons.

Rogers, J. L., Howard, K. I., & Vessey, J. T. (1993). Using significance tests to evaluate equivalence between two experimental groups. *Psychological Bulletin*, *113*(3), 553-565. https://doi.org/10.1037/0033-2909.113.3.553

Rohde, P., Clarke, G. N., Mace, D. E., Jorgensen, J. S., & Seeley, J. R. (2004). An efficacy/effectiveness study of cognitive-behavioral treatment for adolescents with comorbid major depression. *Journal of the American Academy of Child & Adolescent Psychiatry, 43(6*), 660–668. https://doi.org/10.1097/01.chi.0000121067.29744.41\

Rothman, A. J. (2000). Toward a theory-based analysis of behavioral maintenance. *Health Psychology*, *19*(1S), 64–69. https://doi.org/10.1037/0278-6133.19.Suppl1.64

Rowe, R., Costello, E. J., Angold, A., Copeland, W. E., Maughan, B., & Watson, D. (2010). Developmental pathways in oppositional defiant disorder and conduct disorder. *Journal of Abnormal Psychology*, *119*(4), 726–738. https://doi.org/10.1037/a0020798

Sanders, M. R., & Glynn, T. (1981). Training parents in behavioural self-management: An analysis of generalization and maintenance. *Journal of Applied Behavior Analysis*, *14*(3), 223–237. https://doi.org/10.1901/jaba.1981.14-223

Sanders, M. R. (1999). Triple P-positive parenting program: Towards an empirically validated multilevel parenting and family support strategy for the prevention of behavior and emotional problems in children. *Clinical Child and Family Psychology Review*, *2*(2), 71–90. https://doi.org/10.1023/A:1021843613840

Sanders, M. R., & Morawska, A. (2010). Prevention: The role of early universal and targeted interventions. In R. C. Murrihy, A. D. Kidman, & T. H. Ollendick (Eds.). *Clinical handbook of assessing and treating conduct problems in youth*, (pp. 435-454). New York: Springer. https://doi.org/10.1007/978-1-4419-6297-3_17

Sanders, M. R., Kirby, J. N., Tellegen, C. L., & Day, J. J. (2014). The Triple P-Positive parenting program: A systematic review and meta-analysis of a multi-level system of parenting support. *Clinical Psychology Review, 34(4),* 337-357. https://doi.org/10.1016/j.cpr.2014.04.003

Sanders, M. R. (2023). The Triple P System of evidence-based parenting support: Past, present, and future directions. *Clinical Child and Family Psychology Review*, *26*(4), 880–903. https://doi.org/10.1007/s10567-023-00441-8

Santana, L., & Fontenelle, L. F. (2011). A review of studies concerning treatment adherence of patients with anxiety disorders. *Patient Preference and Adherence*, *5*, 427–439. https://doi.org/10.2147/PPA.S23439

Schacter, D. L. (1999). The seven sins of memory: Insights from psychology and cognitive neuroscience. *The American Psychologist*, *54*(3), 182–203. https://doi.org/10.1037/0003-066X.54.3.182

Shaffer, A., Kotchick, B. A., Dorsey, S., & Forehand, R. (2001). The Past, Present, and Future of Behavioural Parent Training: Interventions for Child and Adolescent Problem Behaviour. *The Behavior Analyst Today*, *2*(2), 91–105. https://doi.org/10.1037/h0099922

Scott, S., Spender, Q., Doolan, M., Jacobs, B., Aspland, H., & Webster-Stratton, C. (2001). Multicentre controlled trial of parenting groups for childhood antisocial behaviour in clinical practice Commentary: nipping conduct problems in the bud. *BMJ*, *323*(7306), 194–194. https://doi.org/10.1136/bmj.323.7306.194

Scott, S. (2005). Do parenting programmes for severe child antisocial behaviour work over the longer Term, and for whom? One year follow-up of a multi-centre controlled trial. *Behavioural and Cognitive Psychotherapy*, *33*(4), 403–421. https://doi.org/10.1017/S135246580500233X

Scott, S., & Dadds, M. R. (2009). Practitioner review: when parent training doesn't work: theory-driven clinical strategies. *Journal of Child Psychology and Psychiatry, 50(12),* 1441-1450.

Seabra-Santos, M. J., Gaspar, M. F., Azevedo, A. F., Homem, T. C., Guerra, J., Martins, V., Leita˜o, S., Pimentel, M., Almeida, M., & Moura-Ramos, M. (2016). Incredible Years parent training: What changes, for whom, how, for how long? *Journal of Applied Developmental Psychology, 44*, 93–104. https://doi.org/10.1016/j.appdev.2016.04.004

Sekhon, M., Cartwright, M., & Francis, J. J. (2017). Acceptability of healthcare interventions: an overview of reviews and development of a theoretical framework. *BMC Health Services Research, 17*(1), 1–13. https://doi.org/10.1186/s12913-017-2031-8

Sekhon, M., Cartwright, M., & Francis, J. J. (2018). Acceptability of health care interventions: A theoretical framework and proposed research agenda. *British Journal of Health Psychology, 23*(3), 519–531. https://doi.org/10.1111/bjhp.12295

Sekhon, M., Cartwright, M., & Francis, J. J. (2022). Development of a theory-informed questionnaire to assess the acceptability of healthcare interventions. *BMC Health Services Research, 22(1*), 279. https://doi.org/10.1186/s12913-022-07577-3

Siegel, D. J. (2012). *Developing mind, second edition: How relationships and the brain interact to shape who we are*. New York: Guilford Press.

Silverman, W. K., & Albano, A. M. (1996). *The Anxiety Disorders Interview Schedule for Dsm–IV—Child and Parent Versions*. Psychological Corporation.

Silverman, W. K., Saaverdra, L. M., & Pina, A. A. (2001). Test-retest reliability of anxiety symptoms and diagnoses with the anxiety disorders interview schedule for DSM-IV: child and parent versions. *Journal of the American Academy of Child and Adolescent Psychiatry*, *40*(8), 937–944. https://doi.org/10.1097/00004583-200108000-00016

Skinner, B. F. (1938). *The behavior of organisms: An experimental analysis*. *Appleton-Century.*

Sloan, D. M., Unger, W., & Beck, J. G. (2016). Cognitive-behavioral group treatment for veterans diagnosed with PTSD: Design of a hybrid efficacy-effectiveness clinical trial. *Contemporary Clinical Trials*, *47*, 123–130. https://doi.org/10.1016/j.cct.2015.12.016

Stringaris, A., & Goodman, R. (2009a). Longitudinal outcome of youth oppositionality: irritable, headstrong, and hurtful behaviors have distinctive predictions. *Journal of the American Academy of Child and Adolescent Psychiatry*, *48*(4), 404–412. https://doi.org/10.1097/CHI.0b013e3181984f30

Stringaris, A., & Goodman, R. (2009b). Three dimensions of oppositionality in youth. *Journal of Child Psychology and Psychiatry*, *50*(3), 216–223. https://doi.org/10.1111/j.1469-7610.2008.01989.x

Szapocznik, J., Perez-Vidal, A., Brickman, A. L., Foote, F. H., Santisteban, D., Hervis, O., Kurtines, W. M., & Kazdin, A. (1988). Engaging adolescent drug abusers and their families in treatment: A strategic structural systems approach. *Journal of Consulting*

and Clinical Psychology, *56*(4), 552–557. https://doi.org/10.1037/0022-006X.56.4.552

Tarnowski, J., Simonian, S. J., Park, A., & Bekeny, P. (1992). Acceptability of treatments for child behavioral disturbance: Race, socioeconomic status, and multicomponent treatment effects. *Child and Family Behavior Therapy, 14*(1), 25–37. https://doi.org/10.1300/J019v14n01_03

Tolin, D. F., McKay, D., Forman, E. M., Klonsky, E. D., & Thombs, B. D. (2015). Empirically supported treatment: recommendations for a new model. *Clinical Psychology (New York, N.Y.)*, *22*(4), 317–338. https://doi.org/10.1111/cpsp.12122

Tschida, J. E., Maddox, B. B., Bertollo, J. R., Kuschner, E. S., Miller, J. S., Ollendick, T. H., Greene, R. W., & Yerys, B. E. (2021). Caregiver perspectives on interventions for behavior challenges in autistic children. *Research in Autism Spectrum Disorders*, *81*, 101714-. https://doi.org/10.1016/j.rasd.2020.101714

Tseng, W. L., Kawabata, Y., & Gau, S. S. (2011). Social adjustment among Taiwanese children with symptoms of ADHD, ODD, and ADHD comorbid with ODD. *Child Psychiatry and Human Development*, *42*(2), 134–151. https://doi.org/10.1007/s10578-010-0204-3

Turner, H., Tatham, M., Lant, M., Mountford, V. A., & Waller, G. (2014). Clinicians' concerns about delivering cognitive-behavioural therapy for eating disorders. *Behaviour Research and Therapy*, *57*(1), 38–42. https://doi.org/10.1016/j.brat.2014.04.003

Turner, K. M. T., Singhal, M., McIlduff, C., Singh, S., & Sanders, M. R. (2020). Evidence-based parenting support across cultures: The Triple P - Positive Parenting Program experience. In W. K. Halford & F. van de Vijver (Eds.), *Cross-cultural family research and practice (pp.603-644).* Elsevier Academic

https://doi.org/10.1016/B978-0-12- 815493-9.00019-3

Urben, S., Habersaat, S., Pihet, S., Suter, M., de Ridder, J., & Stéphan, P. (2018). Specific contributions of age of onset, callous-unemotional traits and impulsivity to reactive and proactive aggression in youths with conduct disorders. *Psychiatric Quarterly*, *89*(1), 1–10. https://doi.org/10.1007/s11126-017-9506-y

Valero-Aguayo, L., Rodríguez-Bocanegra, M., Ferro-García, R., & Ascanio-Velasco, L. (2021). Meta-analysis of the efficacy and effectiveness of parent child interaction therapy (Pcit) for child behaviour problems. *Psicothema*, *33*(4), 544–555. https://doi.org/10.7334/psicothema2021.70

Van Aar, J., Leijten, P., Orobio de Castro, B., & Overbeek, G. (2017). Sustained, fade-out or sleeper effects? A systematic review and meta-analysis of parenting interventions for disruptive child behavior. *Clinical Psychology Review*, *51*, 153–163. https://doi.org/10.1016/j.cpr.2016.11.006

Vasileva, M., Graf, R. K., Reinelt, T., Petermann, U., & Petermann, F. (2021). Research review: A meta-analysis of the international prevalence and comorbidity of mental disorders in children between 1 and 7 years. *Journal of Child Psychology and Psychiatry, and Allied Disciplines*, *62*(4), 372–381. https://doi.org/10.1111/jcpp.13261

Vatne, S., & Bjørkly, S. (2008). Empirical evidence for using subjective quality of life as an outcome variable in clinical studies. A meta-analysis of correlates and predictors in persons with a major mental disorder living in the community. *Clinical Psychology Review*, *28*(5), 869–889. https://doi.org/10.1016/j.cpr.2008.01.001

Wahler, R. G. (1969). Oppositional children: A quest for parental reinforcement control. *Journal of Applied Behavior Analysis*, *2*(3), 159–170. https://doi.org/10.1901/jaba.1969.2-159

Waller, G., Stringer, H., & Meyer, C. (2012). What cognitive behavioral techniques do therapists report using when delivering cognitive behavioral therapy for the eating disorders? *Journal of Consulting and Clinical Psychology*, *80*(1), 171–175. https://doi.org/10.1037/a0026559

Waschbusch, D. A., & King, S. (2006). Should sex-specific norms be used to assess attention-deficit/hyperactivity disorder or oppositional defiant disorder?. *Journal of consulting and clinical psychology*, *74*(1), 179–185. https://doi.org/10.1037/0022-006X.74.1.179

Webster-Stratton, C. (1981). Modification of mothers' behaviors and attitudes through a videotape modeling group discussion program. *Behavior Therapy, 12(5),* 634-642.

Webster-Stratton, (1990). Enhancing the effectiveness of self-administered videotape parent training for families with conduct-problem children. *Journal of Abnormal Child Psychology*, *18*(5), 479–492. https://doi.org/10.1007/BF00911103

Webster-Stratton, C. H., & Reid, M. J. (2010). The Incredible Years program for children from infancy to pre-adolescence: Prevention and treatment of behavior problems. In R. C. Murrihy, A. D. Kidman, & T. H. Ollendick (Eds.), *Clinical handbook of assessing and treating conduct problems in youth (pp. 117-138).* New York: Springer. https://doi.org/10.1007/978-1-4419-6297-3_5

Webster-Stratton, C., Rinaldi, J., & Reid, J. M. (2011). Long-term outcomes of Incredible Years parenting program: Predictors of adolescent adjustment long-term follow-up. *Child and Adolescent Mental Health*, *16*(1), 38–46. https://doi.org/10.1111/j.1475-3588.2010.00576.x

Weisz, J. R., Donenberg, G. R., Han, S. S., & Weiss, B. (1995). Bridging the gap between laboratory and clinic in child psychotherapy. J*ournal of Consulting and Clinical Psychology, 63(5)*, 688. https://doi.org/10.1037/0022-006X.63.5.688

Weisz, J. R., Weiss, B., Suwanlert, S., Chaiyasit, W., & La Greca, A. M. (2006a). Culture and youth psychopathology: Testing the syndromal sensitivity model in Thai and American adolescents. *Journal of Consulting and Clinical Psychology*, *74*(6), 1098–1107. https://doi.org/10.1037/0022-006X.74.6.1098

Weisz, J. R., Jensen-Doss, A., & Hawley, K. M. (2006b). Evidence-based youth psychotherapies versus usual clinical care: A meta-analysis of direct comparisons. *The American Psychologist*, *61*(7), 671–689. https://doi.org/10.1037/0003-066X.61.7.671

Weisz, J. R., Kuppens, S., Eckshtain, D., Ugueto, A. M., Hawley, K. M., & Jensen-Doss, A. (2013). Performance of evidence-based youth psychotherapies compared with usual clinical care: A multilevel meta-analysis. *JAMA Psychiatry (Chicago, Ill.)*, *70*(7), 1–12. https://doi.org/10.1001/jamapsychiatry.2013.1176

Werba, B. E., Eyberg, S. M., Boggs, S. R., & Algina, J. (2006). Predicting outcome in Parent-Child Interaction Therapy: success and attrition. *Behavior Modification*, *30*(5), 618–646. https://doi.org/10.1177/0145445504272977

Westen, D., Novotny, C. M., & Thompson-Brenner, H. (2004). The empirical status of empirically supported psychotherapies: assumptions, findings, and reporting in controlled clinical trials. *Psychological Bulletin*, *130*(4), 631–663. https://doi.org/10.1037/0033-2909.130.4.631

Whelan, Y. M., Stringaris, A., Maughan, B., & Barker, E. D. (2013). Developmental continuity of oppositional defiant disorder subdimensions at ages 8, 10, and 13 years and their distinct psychiatric outcomes at age 16 years. *Journal of the American Academy of Child and Adolescent Psychiatry*, *52*(9), 961–969. https://doi.org/10.1016/j.jaac.2013.06.013

Wilson, G. L. & Flamming, M. R. (1991). *Psychometric characteristics of acceptability measures.* Unpublished Manuscript.

Wolf, M. M. (1978). Social validity: The case for subjective measurement or how applied behavior analysis is finding its heart. *Journal of Applied Behavior Analysis*, *11*(2), 203-214. https://doi.org/10.1901/jaba.1978.11-203

Woodfield, M. J., Brodd, I., & Hetrick, S. E. (2021). Time-out with young children: A parent-child interaction therapy (PCIT) practitioner review. *International Journal of Environmental Research and Public Health, 19*(1), 145. https://doi.org/10.3390/ijerph19010145

World Health Organisation (WHO). (2019). *International Classification of Diseases for Mortality and Morbidity Statistics* (4th ed., text rev.). https://icd.who.int/browse11/l-en

Wyatt Kaminski, J., Valle, L. A., Filene, J. H., & Boyle, C. L. (2008). A meta-analytic review of components associated with parent training program effectiveness. *Journal of Abnormal Child Psychology, 36,* 567-589. https://doi.org/10.1007/s10802-007-9201-9

Youngstrom, E. A., Youngstrom, J. K., Freeman, A. J., De Los Reyes, A., Feeny, N. C., & Findling, R. L. (2011). Informants are not all equal: Predictors and correlates of clinician judgments about caregiver and youth credibility. *Journal of Child and Adolescent Psychopharmacology*, *21*(5), 407–415. https://doi.org/10.1089/cap.2011.0032

Zaider, T. I., Heimberg, R. G., Fresco, D. M., Schneier, F. R., & Liebowitz, M. R. (2003). Evaluation of the Clinical Global Impression Scale among individuals with social anxiety disorder. *Psychological Medicine*, *33*(4), 611–622. https://doi.org/10.1017/S0033291703007414

Zhou, X., Hetrick, S. E., Cuijpers, P., Qin, B., Barth, J., Whittington, C. J., Cohen, D., Del Giovane, C., Liu, Y., Michael, K. D., Zhang, Y., Weisz, J. R., & Xie, P. (2015).

Comparative efficacy and acceptability of psychotherapies for depression in children and adolescents. *World Psychiatry, 14*(2)*,* 207–222. https://doi.org/10.1002/wps.20217

Appendix A

Appendix B

A Comparative Analysis of Treatment Acceptability in Collaborative and Proactive Solutions and Parent Management Training for Oppositional Youth

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Funding sources: This research did not receive any specific grant from funding agencies in the public, commercial, or not-for-profit sectors.

Conflict of interest statement: A.D-W, and S.D received royalties related to work concerning Collaborative and Proactive Solutions.

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Abstract

Background: Evaluating treatment acceptability is crucial, as higher acceptability is associated with better adherence and lower dropout rates, a particular concern for the treatment of youth with disruptive behavior disorders. This study expands on previous randomized controlled trials, which demonstrated efficacy for youth with oppositional defiant disorder (ODD), by evaluating the acceptability of Collaborative and Proactive Solutions (CPS), an innovative treatment, to the well-established Parent Management Training (PMT). **Objective:** This exploratory study aims to determine if families in the CPS group find the treatment acceptable and whether there are differences in treatment acceptability between CPS and PMT. This comparison will assist clinicians in distinguishing the suitability of treatments. **Method:** One hundred and sixty youth aged 7-14 years diagnosed with ODD were randomized to CPS (n = 81) or PMT (n = 79) for up to 16 weekly sessions. Treatment adherence, acceptability, satisfaction, and barriers to participation (relevance, therapeutic alliance, treatment demands) were assessed using parent and therapist-rated questionnaires. An intent-to-treat approach was employed, and analysis of variance tests were conducted.

Results: CPS demonstrated very high treatment acceptability ratings, comparable to PMT. While both treatments were highly acceptable, PMT showed a small but statistically significant advantage in satisfaction, adherence, perceived treatment relevance, and demands. **Conclusion:** These results provide reassurance to clinicians that both CPS and PMT interventions, alongside their similar efficacy, are highly acceptable interventions for youth with ODD. Future research should replicate these findings and explore why PMT may have slight advantages, potentially related to child engagement.

Introduction

In his seminal paper on the necessity of including social validity measures in research, Wolf states that "whether or not the program is helpful can be evaluated only by the consumer" (1978, p. 210). He elaborates that using client-reported data allows researchers to capture the social validity of a treatment approach, encompassing the clinical and social significance of the treatment as well as potential side effects (Auby, 2016; Kazdin, 1977; Wolf, 1978). Inquiries into the social validity of a treatment aim to explore essential questions such as: "Are therapeutic changes useful and clinically meaningful for an individual in everyday life?". Overall, social validity includes customer satisfaction with the clinical impact of treatment effects, the acceptability of treatment procedures, and the social significance of the treatment (Wolf, 1978).

Of these components, the client's evaluation of the acceptability of the treatment outcome and process is an aspect of social validity that has received much attention in the literature (Arkan et al., 2020; Fefer et al., 2022; Wolf, 1978). Kazdin (2000), a pioneer in this field, defined treatment acceptability as the overall evaluation of treatment procedures by clients including, whether treatment is fair, reasonable, appropriate, non-intrusive, and represents notions of what clients expect from treatment. While treatments can be effective,

their acceptability to consumers may “vary considerably” (Kazdin, 1980a, p. 260). An example of this is found in the controversy surrounding time-out, a strategy commonly used in several parent management training programs (Chase & Peacock, 2017). Although it has been extensively researched and validated, there is still resistance to time-out from some families who fear such practices break attachment security (Canning et al., 2021; Dadds & Tully, 2019; Woodfield et al., 2021). A further example of acceptability to consumers is when patients, given the option of medication or psychotherapy, prefer the latter, even though both therapies are generally effective (Banken & Wilson., 1992; Krain et al., 2005; Tarnowski et al., 1992; see meta-analytic review: McHugh et al., 2013). This preference is possibly due to worry about side effects or the stigma attached to taking medications (Krain et al., 2005).

It has been argued that assessing acceptability is crucial when evaluating treatments because it is related to greater adherence and reduced dropout rates (Bados et al., 2007; Kazdin et al., 1997a; Nock & Ferriter, 2005; Reimers et al., 1992; see review: Santana & Fontenelle, 2011; Sekhon et al., 2017). Thus, deriving a deeper understanding of clients’ satisfaction with treatment and the acceptability of the process holds significance, especially in the field of behavior problems where retention and adherence rates are problematic (Nock & Ferriter, 2005). Ultimately, clients’ perspectives in evaluating the effectiveness of interventions provide valuable insights that can enhance treatment outcomes.

Many factors are believed to shape parental perception of treatment acceptability. Studies across various psychological conditions suggest that a parent's view of treatment acceptability is affected by elements such as treatment content and format, and quality of care (Sekhon et al., 2017). Kazdin and colleagues, in their focus on disruptive behavior disorders, initially suggested that treatment acceptability is determined by broad characteristics such as the severity of the child's problem, proximal barriers like the perceived relevance of

treatment[6], and the effectiveness of the treatment (1997a; Kazdin, 2000). Surprisingly, while one might expect a strong association between treatment effectiveness and greater treatment acceptability, this is not always the case. The relationship between treatment effectiveness and acceptability is weak, accounting for a shared variance of only 9-12% (Kazdin, 2000). Thus, parental perceptions of treatment acceptability were not strongly related to behavior change in their child (Kazdin, 2000).

Contrary to Kazdin's initial assumptions regarding the factors influencing treatment acceptability, his research revealed that only perceived proximal barriers, not broad characteristics or treatment effectiveness, had the most significant impact on whether a family decides that treatment is acceptable (2000). That is, barriers to participation, as rated by parents, predicts the acceptability of a given treatment. Drawing on the conceptual view underlying the barriers to treatment participation model, Kazdin et al. assert that the greater the barriers that parents experience, the less likely they are to consider the treatment method acceptable (1997b). Research affirms that if families perceive that treatment is too demanding, lacking relevance, or that the parent relationship with the therapist is less than optimal, this influences the acceptability of the treatment (Canning et al., 2021; Kazdin et al., 1997a, 1997b).

Kazdin's foundational work aside, the research on treatment acceptability has lacked rigor and coherence, and it is only in the past five years that researchers have proposed a comprehensive framework for treatment acceptability to aid in conceptual understanding and standardized measurement (Sekhon et al., 2017, 2022). Drawing on a meta-review of 43 systematic reviews, Sekhon and colleagues developed a framework that proposed seven

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[6] Perceived relevance reflects the extent to which treatment was seen as relevant to the child's problems and meets parent expectations (Kazdin,2000).

characteristics of interventions that improve treatment acceptability (2017). Acceptability measures can be assessed prospectively or, as in this case, retrospectively. These characteristics include: (a) how the participant feels about the intervention; (b) user perception and satisfaction; (c) how well the client understands the intervention and how it works; (d) the extent to which benefits or values must be given up to engage in the intervention; (e) the extent to which the intervention is a good fit for the person; (f) the individual's confidence that they can perform the required behavior, and; (g) the amount of effort and time required (Sekhon et al., 2018). This study demonstrates how researchers can now utilize this framework to guide their selection of measurements and improve the consistency of research methodologies.

Expanding on these insights into treatment acceptability, it is important to consider that while psychological therapies, in general, have shown good treatment acceptability (Milosevic et al., 2015; Rabbitt et al., 2014; Tarnowski et al., 1992), there can be differences in acceptability among psychotherapies (Zhou et al., 2015). While no such comparison research exists for disruptive behavior disorders, Zhou and colleagues (2015), in a systematic review of 53 studies comparing treatments for youth depression, found that interpersonal therapy and problem-solving therapy were more acceptable than cognitive behavior therapy. This finding introduces the possibility that a difference in treatment acceptability may be observed between two psychotherapies, Collaborative and Proactive Solutions (CPS) and Parent Management Training (PMT), used to treat disruptive behavior disorders.

From a practical perspective, should differences between treatments exist, this could be a crucial criterion for guiding selection among various treatment options, given the notable effects on attrition and adherence. Although PMT and CPS have demonstrated equivalent effectiveness (Murrihy et al., 2023; Ollendick et al., 2016), acceptability to families may differ. These treatments are grounded in distinct theoretical approaches which, conceivably,

may have differential appeal to parents. It may be that one approach is deemed more demanding than the other or the therapeutic style required to deliver the treatment is perceived by families in distinct ways. Often, deeply held values, beliefs, and philosophies about parenting, which are dynamic in nature, can influence the acceptability of treatment (Canning et al., 2023; Sekhon et al., 2017). For example, Coyne has argued that the "growing application of attachment theory" in the parent advice literature reflects a move away from child management approaches towards one based on the relationship and understanding of the child's mind (p. 380; 2013). The shift in parenting philosophies towards attachment theory may impact parental willingness to engage and adhere to PMT. Moreover, parents who have an authoritarian parenting style and believe in the use of punishment in response to noncompliance may struggle with a model like CPS that emphasizes equality in the parent and child relationship.

So far, the research on treatment acceptability in PMT has employed a variety of measures, with differing quality. Nonetheless, these studies have demonstrated that PMT, and its derivatives, are generally seen as acceptable by parents (Abrahamse et al., 2018; Arkan et al., 2020; Comer et al., 2017; Diaz-Stransky et al., 2020; Fefer et al., 2022; Fleming et al., 2022; Forehand et al., 1980; Johnston et al., 2008; Kohlhoff et al., 2020; McMahon & Forehand., 1983; Niec et al., 2016; Sanders et al., 2014). Further to this, studies have broken down and compared the strategies used in PMT and found that positive reinforcement strategies aimed at increasing desirable behaviors are more acceptable than disciplinary strategies aimed at decreasing negative behaviors (Jones et al., 1998; Kazdin et al., 1981). No studies have yet, evaluated the acceptability of CPS treatment.

This study is the first to investigate whether families participating in treatment for ODD find CPS as acceptable as the well-established PMT. Building on the foundational findings of a recent RCT conducted by our team, which established CPS as equally effective

as PMT in reducing youth behavior problems using symptom and diagnostic measures (Murrihy et al., 2023), this secondary analysis aimed to enhance these findings further. Specifically, it sought to incorporate a subjective viewpoint from families regarding the acceptability of treatment. By carefully selecting multiple measures aligned with a theoretical framework to ensure a more systematic evaluation of treatment acceptability, this study will assess adherence, attitudes toward treatment, satisfaction, and perceived barriers to treatment (Sekhon et al., 2017). Considering the lack of available research on the acceptability of CPS, this study represents an exploratory investigation to examine whether parents perceive CPS as an acceptable treatment and, secondly, whether there are differences between the PMT and CPS groups concerning treatment acceptability. Altogether, this study aims to provide valuable information that can assist the decision-making process for therapists and families when selecting treatments or their alternatives.

Method

Participants

Parents and therapists participating in this study were originally recruited from the same pool of participants utilized in a recently published randomized controlled trial (RCT) that compared ODD outcomes in PMT and CPS (Murrihy et al., 2023). The trial was run over a 5-year period at a community clinic in North Sydney, Australia. The recruitment process involved parents of 7-14 year olds with ODD, who were enrolled through clinical and community referral channels. Of the total sample, 55% were clinically referred by health practitioners and school personnel, while the remaining families self-referred after seeing media advertisements. The screening process included a 20-minute phone call to determine if the child/adolescent met the clinical cut-off on the ODD subscale of the Disruptive Behavior Disorder Rating Scale (DBDRS, Pelham et al., 1992). Two hundred and thirty-two parents met the eligibility criteria and 192 families completed a comprehensive pre-treatment

assessment. Families were deemed eligible for the study if ODD was diagnosed at baseline (Anxiety Disorders Interview Schedule for DSM-IV, ADIS-IV-C/P, Silverman & Albano, 1996). Ethical clearance for this study was obtained from the Ethics Committee of the University of Technology Sydney (Approval Number: HREC 2014000159).

A study flowchart illustrating how participants progressed through the study is presented in Figure 1. In order to fulfill the criteria for ODD, the DSM stipulates that the individual does not meet the criteria for CD. Thus, individuals were excluded if they met the full diagnostic criteria for CD, developmental delay, substance abuse, autism spectrum disorder or were at high risk of suicide. These families were referred on to local services. Psychotropic medications were allowed and participants were encouraged to adhere to a consistent regimen throughout the trial.

According to G*power 3.1 (Faul et al., 2007) the substantial size of the sample recruited for the current project resulted in sufficient power (88% power) at an alpha level of .05 to predict a small effect size (0.25). Assuming a 20% dropout rate, we recruited 80 participants per group. Refer to Table 1 for the sociodemographic characteristics. Before treatment, study participants were assessed as having 'markedly disturbed' levels of behavior problems, as per the ADIS-IV-C/P structured interview (Silverman & Albano, 1996). The mean clinician severity rating (CSR) scores were 6.76 (SD = .92) on a scale of 0-8.

Procedure

After confirming eligibility, families were randomly assigned to either PMT (n = 79) or CPS (n = 81) using a block randomization procedure to ensure equal group sizes. Eleven percent of participants withdrew before starting treatment, due to logistical issues such as timetable conflicts or work commitments. Therapists were also randomly assigned to treatment conditions. For half of the families, treatment was delivered by experienced clinical

psychologists from the Center, intern clinical psychologists saw the remaining half as part of their supervised placement program.

After the treatment period, families completed all self-report questionnaires using Qualtrics software (Version 3, 2016). The Treatment Adherence Questionnaire was the sole questionnaire administered multiple times, evaluating parent adherence at the third, sixth, and ninth sessions. Families received an AU $100 gift voucher as compensation for their time and travel upon completing the assessment.

Interventions

Parents and their child participated in 1-hour sessions every week for a maximum of 15 weeks, with a booster session scheduled two weeks after the final session. After treatment, parents had the option of accessing monthly phone support for the next 6-months as needed. Therapists received comprehensive training including a one-day workshop, reviewing previous sessions (totalling 40 hours), and weekly clinical supervision. Fidelity to therapy was also assessed and found to be adequate (see Murrihy et al., 2023).

Collaborative and Proactive Solutions

CPS falls under the broad umbrella of cognitive-behavioral therapy (CBT) and fits within what has been referred to as the "third wave" of CBT (Greene, 2023). According to this model, a child's cognitive skill deficits (or 'lagging skills') - particularly in the domains of flexibility/adaptability, frustration tolerance, and problem-solving - are a major factor contributing to the development of oppositional behavior in youth (Greene, 1998, 2023). More specifically, according to this model, problems arise when a child/adolescent is placed in situations where the demands of the situation (e.g., adult expectations) exceed their skill level. These unmet expectations are referred to as "unsolved problems". Treatment focuses primarily on providing the parent and youth training in a collaborative and proactive problem-solving approach that seeks to reduce the mismatch between a child's cognitive

skills and the demands of their environment by identifying and addressing the “unsolved problems” (Greene, 1998, 2023).

The process of collaboratively solving problems is hypothesized to indirectly teach the child skills to overcome these cognitive deficits. As therapy progresses, the therapist gradually reduces their involvement, allowing the parent and child to gain confidence in using the CPS approach. CPS treatment involves four stages (Greene, 2023):

1. Educating and Identifying Unsolved Problems: Parents learn about the CPS concept, recognize the cognitive deficits contributing to challenging behavior, and identify unsolved problems.
2. Prioritizing Unsolved Problems: Parents prioritize these problems based on criteria such as safety, severity, or frequency.
3. Understanding Plan A, B, and C: Parents learn about three response options for unsolved problems. Plan A, which is not used in CPS, is not collaborative, and involves unilateral problem-solving and the imposition of adult will ("I've decided that..."). Plan A is counterproductive if used frequently. Plan B involves collaborative problem-solving with the child, while Plan C involves setting aside a problem temporarily to focus on other priorities.
4. Practicing Plan B: Parents and children work through a Plan B together, following CPS-designated steps (empathy step, defining adult concerns, invitation step). The therapist models and coaches this process, and the modules are tailored to each family's needs.

Through these stages, CPS aims to empower parents and children to proactively and collaboratively solve problems, fostering the child's development of essential cognitive skills.

Parent Management Training

In the PMT condition, a manualized program called Defiant Child (2nd ed., Barkley, 1997) was used, with minor modifications as described by Ollendick et al. (2016). Barkley's

program consists of several key components, including (a) educating participants about the multifactorial causes of problem behaviors; (b) developing "positive attending" skills; (c) using differential attending to increase compliance; (d) giving effective commands; (e) implementing home reward systems; (f) providing instruction in "time-out" and response cost techniques; and (g) utilizing a contingency system.

Case Study: Demonstrating the Use of Collaborative and Proactive Solutions (CPS) and Parent Management Training (PMT; Murrihy et al., 2023).

We can compare the CPS and PMT approaches for a child refusing to get dressed on time for school, a common ODD scenario. The CPS process begins with the therapist helping the parent/s identify the unsolved problems wherein the child struggles to meet expectations. In this instance, it is difficult getting dressed by 8 am for school. Once the unsolved problem is identified and prioritized, the therapist coaches both parent/s and child as they proactively engage in the problem-solving steps of a Plan B. During a Plan B, the parent gathers information from the child to better understand their perspective about why they are having trouble getting dressed by 8 am. After the adult has expressed an understanding of the child's concerns, they articulate their concerns regarding school lateness. In the final step, the parent/s and child collaborate to arrive at mutually agreed upon solutions that address each party's concerns. By engaging in the Plan B process, lagging skills, such as executive functioning, are hypothesized to develop over time. In PMT, by contrast, the parent would modify the antecedents and consequences of the behavior to increase compliance. This might include ensuring their child's uniform is prepared and accessible, having enough time to get ready, and having a predictable routine. Behavior is shaped through positive reinforcement as the parent praises and attends to the desired behavior and implements a token economy.

Measures

The Parent Evaluation Inventory (PEI; Kazdin, 1980a*)* is a 19-item questionnaire for parents designed to assess parents' acceptance of interventions for their child with behavior problems. The first subscale, treatment acceptability (8 items, scores range from 8-40) measures the extent to which parents view the treatment procedures as appropriate, reasonable, interesting, and enjoyable. Examples of questions include: “How much did you enjoy parent training and how interesting were the sessions?”. The second subscale, patient progress (11 items; scores range from 11-55) assesses parents' perceptions of their parenting improvements and their child's progress. This includes asking questions like: “How many more skills do you think you have now compared to when you started?”, and “Please rate how much you think you learned from the sessions”. Both subscales were scored on a 5-point Likert-type scale where 1 indicated responses akin to “nothing learned,” and 5 corresponded to responses indicative of having “learned a lot” (a midpoint of 3 is a moderate acceptability rating). Total scores can range from 19 to 95 with higher scores indicating greater acceptability. The PEI scale has demonstrated high levels of reliability and validity (Kazdin, 1980a; Kazdin, 1980b; see Kazdin, 2000; Wilson & Flamming, 1991). In this study, the treatment acceptability subscale internal consistency was $\alpha = .88$ and patient progress was $\alpha = .94$.

The Barriers to Treatment Participation Scale (BTPS; Kazdin et al., 1997a) is a questionnaire for parents that assesses barriers to treatment completion that influence the acceptability of treatment. Parents rather than children were chosen to complete the BTPS because they are generally responsible for making decisions regarding treatment attendance and termination (Armbruster & Fallon, 1994). The BTPS comprises 44 items, rated on a 5-point scale (1 is a statement similar to = never a problem, 5 is comparable to = very often a problem). A higher score indicates more barriers, and therefore, less treatment acceptability. Three subscales were used in this study that directly relate to the experience of treatment and

associated barriers. These include (1) treatment demands and issues (10 items) that reflect concerns and complaints about how well the child understood treatment and how hard the assigned work was for the parent; (2) perceived relevance of treatment (8 items), which measured the relevance and necessity of therapy; and (3) the relationship with the therapist (6 items) which related to the working alliance and how confident the parents perceived the therapist to be that their treatment would work. In the latter two scales, several items were deemed irrelevant for this study and were removed (e.g., "this treatment cost too much" and "the therapist did not call me enough"). Three items (5, 9, 10) were removed from treatment demands and two items (19, 37) from the relationship with therapist subscale. The BTPS has moderate to good reliability (range .69-.80), inter-rater reliability, and convergent and discriminant validity (Kazdin et al., 1997a, 1997b). In terms of reliability, in the current study, the perceived relevance subscale was $\alpha = .78$, the treatment demands subscale was $\alpha = .61$, and satisfaction with therapist subscale was $\alpha = .62$.

The Treatment Adherence Questionnaire (TAQ; Nock & Kazdin, 2005) is a parent and therapist report of the quality and quantity of parental adherence to the treatment program. Adherence is an indicator of engagement that is associated with treatment acceptability (Fleming et al., 2022). Parents are asked to self-report on one item: "During the past week in what percentage of your interactions with your child did you use the skills you have learned so far?" Therapists are also asked to rate the quality of parental adherence to treatment on one item. The items are scored on a 0-4 scale where 0 equals no adherence/mastery and 4 equals perfect adherence/mastery. It is noteworthy that adherence results in session 3 may have been somewhat confounded for the CPS group because the

clinical assessment (ALSUP[7]) often extended to the third session, limiting exposure to treatment.

Results

Statistical analyses

Baseline differences between the active treatment conditions were compared on key demographic variables using chi-square and *t*-test statistics. An intent-to-treat analysis was conducted to assess treatment acceptability outcomes for the randomized sample *(N* = 160). Missing data were imputed using expectation maximization, with no item exceeding 25% of missing cases at the variable level. Data was missing because participants did not attend assessments or randomly missed completing questionnaire items. IBM SPSS Statistics for Windows (Version 27.0) was used for all analyses, with statistical significance determined at a p-value of less than .05. One-way between groups ANOVAs were used to examine the effect of each therapy on treatment acceptability, consumer satisfaction and progress, adherence, and barriers to treatment.

Baseline Characteristics

The two active treatments did not differ significantly on key socioeconomic demographics (gender, age, schooling, maternal and paternal education, income; see Table 1) or clinical severity of behavioral difficulties at the study's outset (see Murrihy et al., 2023).

Treatment Acceptability

PEI. Ratings for treatment acceptability were high for both PMT and CPS conditions (PMT: *M* = 34.29/40, *SD* = 4.03; CPS: *M* = 33.64/40, *SD* = 4.32). There were no significant

[7] The ALSUP is the assessment of lagging skills and unsolved problems. It is used as part of a wide-ranging clinical assessment to identify specific lagging skills and unsolved problems that pertain to a particular child or adolescent.

differences between treatment conditions on parent-rated treatment acceptability: F (1, 158), .972 p = .326. Ratings for perceived patient progress were also high for both treatments (PMT: M = 43.23/55, SD = 7.24; CPS: M = 40.92/55, SD = 7.24). Parents viewed their child's progress as significantly better in the PMT group compared to CPS: F (1, 158), 4.08 p = .045.

BTPS. *Perceived Relevance.* Parents in the CPS group scored significantly higher on the BTPS (M = 14.55 SD = 3.88; scoring range is 8-40), thereby perceiving treatment as less relevant, than parents in the PMT group (M = 13.16, SD = 3.31; F (1, 158), 5.88, p =.016).

Treatment Demands. Results of a one-way ANOVA indicated a statistically significant difference in perceived treatment demands F (1, 158), 9.79 p < .01. Parents in the CPS condition (M = 10.66, SD = 2.85; scoring range is 7-35) scored higher than parents in the PMT condition (M = 9.45, SD = 2.15). Thus, parents in the CPS group perceived treatment as more demanding.

Relationship with Therapist. The one-way ANOVA revealed no statistically significant difference in satisfaction with the therapist F (1, 158), .001, p = .98. Parents in the PMT condition reported similar scores (M = 4.68, SD = 1.14) to parents in the CPS condition (M = 4.69, SD = 1.07). The scoring range is for this subscale is 4-20.

Treatment Adherence Questionnaire. Descriptive statistics for adherence, across two outcome measures (mother-rated and therapist-rated adherence), by treatment condition at Session 3, 6, and 9 can be seen in Table 2. A one-way ANOVA revealed a statistically significant difference in mother and therapist-rated adherence to treatment between the two active conditions (see Table 2). Both therapists and mothers showed greater treatment adherence in the PMT condition compared to CPS.

Discussion

This research aimed to build on the results of an earlier RCT by Murrihy et al. (2023), which showed that CPS and PMT were equally effective in treating youth with ODD on symptom remission and diagnostic recovery measures. By adding supplementary data on client perspectives to this current study, the social validity of these treatments was brought into focus. Valuable insight was gained into parents' beliefs about the acceptability of PMT and CPS treatments, including whether a treatment was perceived as reasonable, appropriate, and in line with expectations. This research holds importance because, even when treatments are deemed effective, a family's judgment of the treatment's suitability and compatibility with their expectations plays a pivotal role in their willingness to participate and adhere to treatment (Kazdin, 1980a; Sekhon, 2017; 2022). When consumers are faced with choosing between two alternative treatments with comparable efficacy, acceptability may be a crucial factor in this decision. This study was novel because it was the first randomized trial to consider the treatment acceptability of CPS and whether it paralleled the high levels of acceptability previously reported by parents participating in PMT treatment (Fleming et al., 2022; Johnston et al., 2008; Niec et al., 2016).

First, this exploratory analysis examined the treatment acceptability of CPS and PMT as viewed by parents. Then it looked at whether there were differences between the two groups, measuring treatment acceptability directly and via several related measures (i.e., barriers to participation, and adherence). Starting with the direct assessment of acceptability, the Parent Evaluation Inventory (PEI) results showed parents perceived both CPS and PMT as highly acceptable treatments (means ranged from 4.21-4.28 on a 5-point Likert scale). Likewise, on the PEI's measure of treatment satisfaction, parents in both conditions reported high levels of satisfaction with their progress and that of their child. Thus, acceptability and satisfaction were shown to be high and comparable to the PEI in both CPS and PMT conditions.

Having established high treatment acceptability rates on the PEI for both treatment approaches, this research examined potential differences in treatment acceptability and perceived satisfaction among parents in the CPS and PMT conditions. Mixed results were found. No significant differences were shown between the two treatment conditions on measures of treatment acceptability, both of which were deemed highly acceptable. In contrast, a statistically significant difference was observed between CPS and PMT regarding parents' views of their child's progress and their own progress. Parents in the PMT group showed more satisfaction with their parenting improvements and their child's progress compared with CPS. In short, the groups did not differ on direct measures of treatment acceptability. However, they did differ on treatment satisfaction - with results favoring PMT.

Perceived barriers to treatment participation, measured via several subscales focusing on relevance, demandingness, and the therapeutic relationship, were also used as a barometer of treatment acceptability. Overall, this study affirmed that parents in the CPS and PMT groups typically reported few perceived barriers to treatment participation. Parents did not view either treatment as demanding or difficult, nor did their children, who readily understood the treatment. Moreover, parents in the CPS and PMT conditions evaluated treatment as highly relevant and necessary. They also reported that the approach of their practitioners and the working alliance and trust developed throughout treatment had been positive.

Although the parents in both conditions in this study reported a low level of treatment barriers overall, closer examination showed some statistically significant differences between the groups. For a second time, results favored PMT. Parents in the PMT condition viewed treatment as more relevant and, necessary, and less demanding than those in the CPS group. Altogether, parents in both active conditions reported few obstacles to participation,

associated with higher treatment acceptability. However, the PMT group experienced fewer barriers to treatment participation compared to the CPS group.

Another indicator of treatment engagement and acceptability was adherence rates. Adherence to treatment was found to be consistently higher in the PMT group compared with the CPS group after the third, sixth, and ninth treatment sessions. A statistically significant difference between treatments was found over all three time points for parent adherence ratings (PMT = 60-66%; CPS = 38-46%). It is noteworthy that parents in the CPS group rated their adherence at below 50%, which might be attributed to the level of child involvement in the treatment, to be discussed shortly. Therapist-rated adherence on this questionnaire also mirrored parent findings, with adherence rates consistently higher in the PMT group (PMT = 69-69%; CPS = 51-62%). Results suggest that the quality of parent adherence and treatment mastery, as rated by both parents and therapists, appeared to be significantly higher in the PMT group; reflective of better treatment engagement and acceptability. In summary, this study shows that parents in both CPS and PMT view treatments as acceptable across various measures, including acceptability, satisfaction, adherence, and perceived barriers. However, PMT was consistently regarded as significantly more acceptable than CPS on the majority of these measures.

Clearly, not all treatments are acceptable to consumers, and among those that are, some may be more acceptable than others. This study lends weight to earlier research (Sanders et al., 2014), confirming that PMT is highly acceptable to parents of children with ODD. The novel finding in this study was that CPS was also considered highly acceptable. Although previous behavioral disorder research has indicated that psychotherapies are generally more acceptable than pharmacological treatments (Krain et al., 2005), research in other realms, such as youth depression, has shown there can also be differences in acceptability among psychotherapies (Zhou et al., 2015). This was shown to be the case here

on both counts; both psychotherapies were highly acceptable, and PMT demonstrated some superiority over CPS. This study confirms the high acceptability of both treatments for ODD and adds to our understanding that their acceptability can vary, a phenomenon previously noted in youth depression and now observed for ODD as well.

The high levels of treatment acceptability reported by parents in the CPS and PMT treatments are shown in this study to be related to a range of factors, including the time and effort required, perceived relevance of treatment, relationship with the therapist, alignment with expectations and whether treatment is a "good fit" for the child and their family. There might also be common principles underlying CPS and PMT treatment that explain their high levels of acceptability. Both treatments incorporate a psychoeducational component to help families understand the treatment process, which can aid clients in orienting to treatment and understanding its mechanisms. The degree to which a client comprehends the intervention and its mechanisms has been theorized to play a role in its acceptability (Sekhon et al., 2018). Further research has closely examined the acceptability of individual strategies inherent to PMT, revealing that parents generally prefer positive reinforcement techniques, such as praise and reward charts, which aim to increase desirable behaviors. In contrast, they tend to be less inclined toward disciplinary strategies like response cost and time-out, which aim to decrease negative behaviors. CPS operates similarly, emphasizing a collaborative approach to problem-solving to encourage prosocial behavior. Qualitative research in future studies could enhance our understanding of the common factors contributing to the high acceptability ratings of both CPS and PMT. By identifying common themes across these experiences, qualitative research can provide valuable insights into the underlying reasons for the acceptability of CPS and PMT strategies.

From a clinical standpoint, although parents widely accept both treatments, PMT distinguishes itself from CPS in this study (albeit with small mean differences) by exhibiting

higher rates of acceptability on several measures; a finding that warrants further consideration. One potential explanation for this difference lies in the different formats of these treatments, particularly the degree of child engagement that is required for CPS to be successful. Collaboration with both parent and child is a key factor in both treatments. However, it can be argued that CPS requires greater active involvement of the child in the problem-solving process, and without this, therapy cannot proceed. For instance, if the child does not actively participate in problem-solving discussions or perceives the issue as requiring attention, it can pose challenges for the parent. This perceived lack of control and increased uncertainty may influence the parents' perception of treatment acceptability.

Then again, the uncertainty that comes with this reliance on child engagement might have also impacted therapist confidence. Whilst CPS has clear guidelines on steps for therapists to follow, there is a lot more variability within treatment than with PMT. In CPS, if the child struggles with emotional regulation when verbalizing their concerns, the therapist is challenged to draw upon additional skills to problem-solve how to engage the child. The therapy works most effectively when the clinician can actively engage the child. This added complexity in CPS may diminish therapist confidence, which, in turn, can lower parental perception of the therapist's competence and their view of the acceptability of treatment. Thus, lower rates of treatment acceptability in CPS compared to PMT could be linked to the uncertainty associated with engaging the child in therapy, which affects both parents and therapists.

This study possesses several notable strengths. It represents one of the few RCTs that has added measures of subjective social validity to a traditional RCT to measure acceptability. It enriches the existing knowledge base by introducing subjective measures, strengthening the practical conclusions that can be reached that CPS and PMT treatments are both effective and acceptable. This research has also advanced on the methodology of

previous studies, which often measured acceptability in a somewhat haphazard manner, by employing measures based on a well-defined framework for this concept. These comprehensive measures included attitude toward treatment and satisfaction, adherence, and perceived burden (Sekhon et al., 2017). Future studies, in addition to basing measures on clearly operationalized definitions and theory of treatment acceptability, could also include qualitative information examining the underlying factors determining acceptability and potential adverse effects.

A further strength of this study is its utilization of randomization and the sizable sample of 160 participants, which bolstered its statistical power to detect meaningful effects. Additionally, the involvement of highly trained and closely supervised therapists utilizing treatment manuals contributes to the collection of reliable data. Finally, this study has an ethnically diverse and representative sample, which enhances the generalizability of the results (Australian Bureau of Statistics, 2016, 2020).

It is also important to consider several limitations in our study. First, the sample assesses the acceptability of treatment specifically for ODD. Families with youth presenting with other issues like conduct disorder, autism spectrum disorder, developmental delay, high levels of suicidality, and substance abuse, who may have different experiences related to their child's complexities, were excluded. Second, this study's assessment of treatment acceptability primarily relied upon parents' evaluations of the treatments, following a precedent set by previous studies (Arkan et al., 2020; Fefer et al., 2022). This precedent may have arisen because of an underlying assumption that children with behavior problems typically attend therapy in an involuntary capacity, often not fully aware of the impact of their behavior, and, therefore might not be reliable reporters of treatment acceptability. Similarly, seeking the input of therapists is also important, as research has shown that therapists who have ambivalence about the treatment may not deliver with fidelity (Allinder & Oats, 1997;

Borrelli et al., 2005). Taken together, to enhance future research, it is crucial to include children who are directly undergoing treatments in these evaluations as well as therapists. A final limitation in this study was that the selection of some questionnaires was constrained by the historical lack of robust psychometrics in measures in this field (Canning et al., 2021; Kazdin, 2000). Future research would benefit from the further validation of more rigorous tools based on underlying theory and tailored to assess consumer satisfaction and acceptability.

From a clinical perspective, this study sought to explore if there were differences in treatment acceptability between PMT and CPS to distinguish between treatments and guide families towards the most suitable option. Consequently, questions persist when families present to therapy with a child or adolescent with behavior problems as to which therapy they are best directed towards? Or if a therapist is trained in both treatments, which treatment should they opt to deliver - PMT or CPS? The practical implications of these findings are not clear on this count and are preliminary at best. The results do offer some reassurance that both treatments are well-received by families. Combined with the results of the initial phase of this research (Murrihy et al., 2023), these findings support the assertion that CPS represents an additional evidence-based treatment choice for youth with ODD that is acceptable to parents. That said, it cannot be overlooked that there appears to be some advantage to PMT over CPS on some of the acceptability measures. This difference could potentially be attributed to the increased emphasis on the child's role and the requirement for active child involvement in the CPS treatment. However, given the small mean differences between the treatments, it is challenging to determine if this finding is clinically significant. The next steps needed are to replicate these findings and include qualitative measures to understand better why this difference exists and whether it is related to the child engagement factor.

In conclusion, the efficacy of CPS and PMT in treating youth with ODD is recognized (Greene et al., 2023; Murrihy et al., 2023; Ollendick et al., 2016). However, there is a lack of comprehensive understanding as to how these treatments compare in terms of acceptability to families, which strongly influences a family's adherence to, or dropout from, treatment. Results from this study demonstrate that both CPS and PMT are highly acceptable treatments for children and adolescents with disruptive behavior disorders. Families engaged in both PMT and CPS found the treatments fair, reasonable, appropriate, and in line with their expectations. Although both treatments were highly acceptable, PMT showed some superiority on measures of satisfaction, adherence, perceived treatment relevance, and demands. This difference is possibly a byproduct of the elevated role of the child in CPS therapy and the associated demands on the parent and therapist. The results of this study offer reassurance to therapists tasked with choosing between treatment options that both interventions are highly acceptable and viable choices for families. Future studies should replicate these findings, relying on recently advanced theories of the construct, incorporating qualitative data, and striving to gather information from children and adolescents directly. A greater understanding of moderators for PMT and CPS represents the next step toward identifying distinct characteristics that will help guide families toward the most suitable treatment.

References

Abrahamse, M.E., Junger, M., van Wouwe, M.A.M.M., Boer, F. & Lindauer, R. J. L. (2018). Treating child disruptive behavior in high-risk families: A comparative effectiveness trial from a community-based implementation. *Journal of Child and Family Studies 25,* 1605–1622. https://doi.org/10.1007/s10826-015-0322-4

Allinder, R. M., & Oats, R. G. (1997). Effects of acceptability on teachers' implementation of curriculum-based measurement and student achievement in mathematics computation. *Remedial and Special Education, 18*(2), 113-120. https://doi.org/10.1177/074193259701800205

Arkan, B., Güvenir, T., Ralph, A., & Day, J. (2020). The efficacy and acceptability of the Triple P: Positive Parenting Program with Turkish parents. *Journal of Child and Adolescent Psychiatric Nursing, 33*(3), 148-156. https://doi.org/10.1111/jcap.12283

Armbruster, P., & Fallon, T. (1994). Clinical, sociodemographic, and systems risk factors for attrition in a children's mental health clinic. *American Journal of Orthopsychiatry, 64*(4), 577-585. https://doi.org/10.1037/h0079571

Auby, J. H. (2016). Predictors of treatment satisfaction in cognitive behavioral therapy for youth (Master's thesis).

Australian Bureau of Statistics (ABS, 2016). *Data by region*. Retrieved February 20, 2020, from: https://www.abs.gov.au/

Australian Bureau of Statistics. (ABS, 2020). *Cultural diversity in Australia, 2016.* https://www.abs.gov.au/ausstats/abs@.nsf/Lookup/by+Subject/2071.0~2016~Main+Features~Cultural+Diversity+Article~60

Bados, A., Balaguer, G., & Saldaña, C. (2007). The efficacy of cognitive-behavioral therapy and the problem of drop-out. *Journal of Clinical Psychology, 63*(6), 585-592. https://doi.org/10.1002/jclp.20368

Banken, D. M., & Wilson, G. L. (1992). Treatment acceptability of alternative therapies for depression: A comparative analysis. *Psychotherapy: Theory, Research, Practice, Training, 29*(4), 610-619. https://doi.org/10.1037/0033-3204.29.4.610

Barkley, R. A. (1997). *Defiant children: A clinician's manual for assessment and parent training* (2nd ed.). Guilford Press.

Borrelli, B., Sepinwall, D., Ernst, D., Bellg, A. J., Czajkowski, S., Breger, R., DeFrancesco, C., Levesque, C., Sharp, D., Ogedegbe, G., Resnick, B., & Orwig, D. (2005). A new tool to assess treatment fidelity and evaluation of treatment fidelity across 10 years of health behavior research. *Journal of Consulting and Clinical Psychology, 73*(5), 852-860. http://doi.org/10.1037/0022-006X.73.5.852

Burnham, K. P., & Anderson, D. R. (2004). Multimodel inference: understanding AIC and BIC in model selection. *Sociological methods & research, 33(2),* 261-304. https://doi.org/10.1177/0049124104268644

Canning, M. G., Jugovac, S., & Pasalich, D. S. (2021). An updated account on parents' use of and attitudes towards time-out. *Child Psychiatry and Human Development,* 1-14. https://doi.org/10.1007/s10578-021-01252-0

Canning, M. G., Jugovac, S., & Pasalich, D. S. (2023). An updated account of parents' use of and attitudes towards time-out. *Child Psychiatry and Human Development, 54(2),* 436-449). https://doi.org/10.1007/s10578-021-01252-0

Chase, T., & Peacock, G. G. (2017). An investigation of factors that influence acceptability of parent training. *Journal of Child and Family Studies, 26*, 1184-1195. https://doi.org/10.1007/s10826-016-0644-x

Chorpita, B. F., & Weisz, J. R. (2009). MATCH-ADTC: *Modular approach to therapy for children with anxiety, depression, trauma, or conduct problems.* PracticeWise, LLC.

Comer, J. S., Furr, J. M., Miguel, E. M., Cooper-Vince, C. E., Carpenter, A. L., Elkins, R. M., Kerns, C., Cornacchio, D., Chou, T., Coxe, S., DeSerisy, M., Sanchez, A., Golik, A., Martin, J., Myers, K. M., & Chase, R. (2017). Remotely delivering real-time parent

training to the home: An initial randomized trial of Internet-delivered parent–child interaction therapy (I-PCIT). *Journal of Consulting and Clinical Psychology, 85*(9), 909-917. https://psycnet.apa.org/doi/10.1037/ccp0000230

Coyne, J. (2013). Parenting from the outside-in: Reflections on parent training during a potential paradigm shift. *Australian Psychologist*, *48*(5), 379–387. https://doi.org/10.1111/ap.12010

Dadds, M. R., & Tully, L. A. (2019). What is it to discipline a child: What should it be? A reanalysis of time-out from the perspective of child mental health, attachment, and trauma. *The American Psychologist*, *74*(7), 794–808. https://doi.org/10.1037/amp0000449

Diaz-Stransky, A., Rowley, S., Zecher, E., Grodberg, D., & Sukhodolsky, D. G. (2020). Tantrum tool: Development and open pilot study of online parent training for irritability and disruptive behavior. *Journal of Child and Adolescent Psychopharmacology, 30*(9), 558-566. https://doi.org/10.1089/cap.2020.0089

Farrell, L. J., Murrihy, R., & Essau, C. A. (Eds.). (2023). *Handbook of Child and Adolescent Psychology Treatment Modules: Personalized Care in Behavior and Emotion.* Academic Press. https://doi.org/10.1016/C2019-0-04141-1

Faul, F., Erdfelder, E., Lang, AG. *et al.* (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods 39*, 175–191. https://doi.org/10.3758/BF03193146

Fefer, S. A., Donnelly, M., & Santana, Z. A. (2022). Pilot implementation of school-based behavioral parent training: Outcomes and acceptability. *Journal of Child and Family Studies, 31*(1), 260–275. https://doi.org/10.1007/s10826-021-02117-9

Fleming, G. E., Neo, B., Briggs, N. E., Kaouar, S., Frick, P. J., & Kimonis, E. R. (2022). Parent training adapted to the needs of children with callous–unemotional traits: A randomized controlled trial. *Behavior Therapy, 53*(6), 1265-1281. https://doi.org/10.1016/j.beth.2022.07.001

Forehand, R., Wells, K. C., & Griest, D. L. (1980). An examination of the social validity of a parent training program. *Behavior Therapy, 11*(4), 488-502. https://doi.org/10.1016/S0005-7894(80)80065-7

Greene, R. W. (1998). *The explosive child: A new approach for understanding and parenting easily frustrated, "chronically inflexible" children*. HarperCollins Publishers.

Greene, R. W. (2023). Collaborative and proactive solutions. In L. Farrell, R. Murrihy & C. Essau (Eds.), *Handbook of child and adolescent psychology* (pp. 291-303). Academic Press. https://doi.org/10.1016/B978-0-323-99613-6.00007-7

Johnston, C., Hommersen, P., & Seipp, C. (2008). Acceptability of behavioral and pharmacological treatments for attention-deficit/hyperactivity disorder: Relations to child and parent characteristics. *Behavior Therapy, 39*(1), 22-32. https://doi.org/10.1016/j.beth.2007.04.002

Jones, M. L., Eyberg, S. M., Adams, C. D., & Boggs, S. R. (1998). Treatment acceptability of behavioral interventions for children: An assessment by mothers of children with disruptive behavior disorders. *Child and Family Behavior Therapy, 20*(4), 15-26. https://doi.org/10.1300/J019v20n04_02

Kazdin, A. E. (1977). Assessing the clinical or applied importance of behavior change through social validation. *Behavior Modification*, *1*(4), 427-452. https://doi.org/10.1177/014544557714001

Kazdin, A. E. (1980a). Acceptability of alternative treatments for deviant child behavior. *Journal of Applied Behavior Analysis*, *13*(2), 259-273. https://doi.org/10.1901/jaba.1980.13-259

Kazdin, A. E. (1980b). Acceptability of time out from reinforcement procedures for disruptive child behavior. *Behavior Therapy, 11*(3), 329-344. https://doi.org/10.1016/S0005-7894(80)80050-5

Kazdin, A. E. (2000). Perceived barriers to treatment participation and treatment acceptability among antisocial children and their families. *Journal of Child and Family Studies*, *9*(2), 157-174. https://doi.org/10.1023/A:1009414904228

Kazdin, A. E., French, N. H., & Sherick, R. B. (1981). Acceptability of alternative treatments for children: evaluations by inpatient children, parents, and staff. *Journal of Consulting and Clinical Psychology, 49*(6), 900-907. https://doi.org/10.1037/0022-006X.49.6.900

Kazdin, A. E., Holland, L., Crowley, M., & Breton, S. (1997a). Barriers to treatment participation scale: Evaluation and validation in the context of child outpatient treatment. *Journal of Child Psychology and Psychiatry*, *38*(8), 1051-1062. https://doi.org/10.1111/j.1469-7610.1997.tb01621.x

Kazdin, A. E., Holland, L., & Crowley, M. (1997b). Family experience of barriers to treatment and premature termination from child therapy. *Journal of Consulting and Clinical Psychology*, *65*(3), 453-463. https://doi.org/10.1037//0022-006x.65.3.453

Kohlhoff, J., Cibralic, S., Horswood, D., Turnell, A., Maiuolo, M., & Morgan, S. (2020). Feasibility and acceptability of internet-delivered parent-child interaction therapy for

rural Australian families: A qualitative investigation. *Rural and Remote Health, 20*(1), 147-155. https://doi.org /10.22605/RRH5306

Krain, A. L., Kendall, P. C., & Power, T. J. (2005). The role of treatment acceptability in the initiation of treatment for ADHD. *Journal of Attention Disorders, 9*(2), 425-434. https://doi.org/10.1177/1087054705279996

McHugh, R. K., Whitton, S. W., Peckham, A. D., Welge, J. A., & Otto, M. W. (2013). Patient preference for psychological vs pharmacologic treatment of psychiatric disorders: A meta-analytic review. *The Journal of Clinical Psychiatry*, *74*(6), 595–602. https://doi.org/10.4088/JCP.12r07757

McMahon, R. J., & Forehand, R. L. (1983). Consumer satisfaction in behavioral treatment of children: Types, issues, and recommendations. *Behavior Therapy, 14*(2), 209-225. https://doi.org/10.1016/S0005-7894(83)80111-7

Milosevic, I., Levy, H. C., Alcolado, G. M., & Radomsky, A. S. (2015). The Treatment Acceptability/Adherence Scale: Moving beyond the assessment of treatment effectiveness. *Cognitive Behaviour Therapy*, *44*(6), 456–469. https://doi.org/10.1080/16506073.2015.1053407

Murrihy, R. C., Drysdale, S. A. O., Dedousis-Wallace, A., Rémond, L., McAloon, J., Ellis, D. M., Halldorsdottir, T., Greene, R. W., & Ollendick, T. H. (2023). Community-delivered collaborative and proactive solutions and parent management training for oppositional youth: A randomized trial. *Behavior Therapy*, *54*(2), 400–417. https://doi.org/10.1016/j.beth.2022.10.005

Niec, L. N., Barnett, M. L., Prewett, M. S., & Shanley Chatham, J. R. (2016). Group parent–child interaction therapy: A randomized control trial for the treatment of conduct

problems in young children. *Journal of Consulting and Clinical Psychology, 84*(8), 682-698. https://doi.org/10.1037/a0040218

Nock, M. K., & Ferriter, C. (2005). Parent management of attendance and adherence in child and adolescent therapy: A conceptual and empirical review. *Clinical Child and Family Psychology Review*, *8*(2), 49-166. https://doi.org/10.1007/s10567-005-4753-0

Nock, M. K., & Kazdin, A. E. (2005). Randomized controlled trial of a brief intervention for increasing participation in parent management training. *Journal of Consulting and Clinical Psychology, 73*(5), 872-879. https://doi.org/10.1037/0022-006X.73.5.872

Ollendick, T. H., Greene, R. W., Austin, K. E., Fraire, M. G., Halldorsdottir, T., Allen, K. B., Jarrett, M. A., Lewis, K. M., Whitmore Smith, M., Cunningham, N. R., Noguchi, R. J. P., Canavera, K., & Wolff, J. C. (2016). Parent management training and collaborative and proactive solutions: A randomized control trial for oppositional youth. *Journal of Clinical Child and Adolescent Psychology*, *45*(5), 591-604. https://doi.org/10.1080/15374416.2015.1004681

Pelham, W. E., Jr, Gnagy, E. M., Greenslade, K. E., & Milich, R. (1992). Teacher ratings of DSM-III-R symptoms for the disruptive behavior disorders. *Journal of the American Academy of Child and Adolescent Psychiatry*, *31*(2), 210–218. https://doi.org/10.1097/00004583-199203000-00006

Rabbitt, S. M., Kazdin, A. E., & Hong, J. E. (2014). Acceptability of animal-assisted therapy: Attitudes toward AAT, psychotherapy, and medication for the treatment of child disruptive behavioral problems. *Anthrozoös*, *27*(3), 335–350. https://doi.org/10.2752/175303714X13903827487881

Reimers, T. M., Wacker, D. P., Cooper, L. J., & DeRaad, A. O. (1992). Clinical evaluation of the variables associated with treatment acceptability and their relation to

compliance. *Behavioral Disorders, 18*(1), 67-76. https://doi.org/10.1177/019874299201800108

Sanders, M. R., Kirby, J. N., Tellegen, C. L., & Day, J. J. (2014). The Triple P-Positive Parenting Program: A systematic review and meta-analysis of a multi-level system of parenting support. *Clinical Psychology Review, 34*(4), 337-357. https://dx.doi.org/10.1016/j.cpr.2014.04.003

Santana, L., & Fontenelle, L. F. (2011). A review of studies concerning treatment adherence of patients with anxiety disorders. *Patient Preference and Adherence*, *5*, 427-439. https://doi.org/10.2147/PPA.S23439

Sekhon, M., Cartwright, M., & Francis, J. J. (2017). Acceptability of healthcare interventions: an overview of reviews and development of a theoretical framework. *BMC Health Services Research, 17*(1), 1-13. https://doi.org/10.1186/s12913-017-2031-8

Sekhon, M., Cartwright, M., & Francis, J. J. (2018). Acceptability of health care interventions: A theoretical framework and proposed research agenda. *British Journal of Health Psychology, 23*(3), 519-531. https://doi.org/10.1111/bjhp.12295

Sekhon, M., Cartwright, M., & Francis, J. J. (2022). Development of a theory-informed questionnaire to assess the acceptability of healthcare interventions. *BMC Health Services Research, 22*(1), 279. https://doi.org/10.1186/s12913-022-07577-3

Silverman, W. K., & Albano, A. M. (1996). *The Anxiety Disorders Interview Schedule for DSM–IV—Child and parent versions.* Psychological Corporation.

Tarnowski, K. J., Simonian, S. J., Park, A., & Bekeny, P. (1992). Acceptability of treatments for child behavioral disturbance: Race, socioeconomic status, and multicomponent

treatment effects. *Child and Family Behavior Therapy, 14*(1), 25-37. https://doi.org/10.1300/J019v14n01_03

Venturo-Conerly, K. E., Fitzpatrick, O. M., & Weisz, J. R. (2023). Introduction: An overview of transdiagnostic, modular approaches to youth psychotherapy. In L. J. Farrell, R. Murrihy, & C. A. Essau (Eds.), *Handbook of Child and Adolescent Psychology Treatment Modules: Personalized Care in Behavior and Emotion (pp. 3–15).* Academic Press. https://doi.org/10.1016/B978-0-323-99613-6.00004-1

Vrieze, S. I. (2012). Model selection and psychological theory: a discussion of the differences between the Akaike information criterion (AIC) and the Bayesian information criterion (BIC). *Psychological methods, 17(2),* 228. https://psycnet.apa.org/doi/10.1037/a0027127

Wilson, G. L. & Flamming, M. R. (1991). *Psychometric characteristics of acceptability measures.* Unpublished Manuscript.

Wolf, M. M. (1978). Social validity: The case for subjective measurement or how applied behavior analysis is finding its heart. *Journal of Applied Behavior Analysis*, *11*(2), 203-214. https://doi.org/10.1901/jaba.1978.11-203

Woodfield, M. J., Brodd, I., & Hetrick, S. E. (2021). Time-out with young children: A parent-child interaction therapy (PCIT) practitioner review. *International Journal of Environmental Research and Public Health, 19*(1), 145. https://doi.org/10.3390/ijerph19010145

Zhou, X., Hetrick, S. E., Cuijpers, P., Qin, B., Barth, J., Whittington, C. J., Cohen, D., Del Giovane, C., Liu, Y., Michael, K. D., Zhang, Y., Weisz, J. R., & Xie, P. (2015). Comparative efficacy and acceptability of psychotherapies for depression in children

and adolescents. *World Psychiatry, 14(2),* 207–222. https://doi.org/10.1002/wps.20217