Establishing A Continuum of Care for Evidence-Based Behavioral Treatment for Youth with Disruptive Behavior

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Abstract

Disruptive behavior problems are a common and impairing condition among youth. Evidence-based behavioral interventions for behavioral problems in Mississippi are scarce. The present manuscript details the current diagnostic criteria for disruptive behavior disorders, reviews treatment guidelines and current treatment service use trends both nationally and in Mississippi. Overall, national surveys of behavioral treatment use indicate a disparity between treatment guidelines and typical service provision. Based on this disparity, this report introduces and reviews the establishment of a new evidence-based behavioral treatment for Mississippi families that embraces a continuum of care approach: Parent-Child Interaction Therapy (PCIT) and its prevention-based and supportive companion Child-Adult Relationship Enhancement (CARE). Guidelines for evidenced-based treatment practices that physicians may use to monitor and ensure that children are receiving evidenced-based behavioral care for behavioral disorders are also presented. Improving access to such evidence-based behavioral interventions is crucial to maximize long-term outcomes for Mississippi families.

Key Words: disruptive behavior problems, behavioral treatment, children, evidence-based practice, parent-child interaction therapy

Introduction

Disruptive behavior problems are among the most common mental health concerns affecting children. The estimated national lifetime prevalence rate of disruptive behavior disorders among children under age eight is 10-18%. Commonly observed impairments include family conflict and dysfunction, decreased school performance, social difficulty with peers and victimization, and difficulty with emotion regulation. Longitudinal findings indicate that early behavioral disturbances also place children at substantial later risk for other forms of impairment and disturbance during adolescence and adulthood including co-occurring mental problems (e.g., depression, suicidality), delinquency/criminality, substance use, and financial and relational difficulties. The management of behavioral problems is also associated with large financial and societal costs, with an estimated total annual cost of $247 billion. The treatment of behavior problems in children is, therefore, an important public health priority in the United States, and in Mississippi because of their high prevalence, early age of onset, and impact on the individual child, family, and community. This manuscript, therefore, has several key aims: (1) review of the phenomenology of childhood disruptive behavior disorders, (2) review of current national treatment guidelines and recent service trends in treating behavioral problems, and (3) explanation of the introduction of a new evidence-based behavioral treatment program for families in Mississippi.

Phenomenology of Child Disruptive Behaviors

Disruptive behavior disorders are characterized by repeated, maladaptive problems with oppositional behaviors toward others, including peers and authority figures. Clinical presentations include Oppositional Defiant Disorder (ODD) and Conduct Disorder (CD). ODD is defined by a pattern of angry/irritable mood, argumentativeness, defiance, and vindictiveness towards others. CD is defined as a repetitive and persistent pattern of behavior that violates the rights of others, major societal/age norms, or rules. In younger children, significant tantrums, outbursts, reflexive defiance (i.e., "No!"), and acts of aggression are frequent symptoms.

Notably, disruptive behavior in children with neurodevelopmental disabilities occurs at a much higher rate than among neurotypical children and constitutes a major source of impairment. Neurodevelopmental disorders as a group are common and encompass a range of developmental issues encountered by physicians, including speech/language delays, motor delays, cognitive/learning delays, attention-deficit/hyperactivity disorder (ADHD), and autism spectrum disorder, as well as other specific conditions affecting development (e.g., Fetal Alcohol Syndrome). Addressing co-occurring behavioral disturbances in these children is especially important as disturbances have the potential to interfere with progress in treatments for the disorder itself (e.g., speech/occupational therapy) may be an additional source of impairment.

Treatment Guidelines and Service Trends

National treatment guidelines. Behavioral interventions are the first-line treatments recommended for childhood disruptive behavior in preschool-aged youth. Guidelines from the American Academy of Pediatrics, the American Academy of Child and Adolescent Psychiatry, the American Psychological Association, and the Centers for Disease Control uniformly advise physicians to facilitate referral for or initiate behavioral treatments for children ≤ 5 years prior to the introduction of

medication, if possible.[1-3] Recent data on national service use trends, however, have raised questions over the quality of medical care for behavioral problems and whether families are receiving treatment that corresponds to these consensus practice guidelines.

Trends in treatment practice. The concern that practice guidelines are followed less frequently than recommended is largely based on the increased use of psychotropic medications for the treatment of childhood disruptive behavior in outpatient care in recent years. For example, rates of psychotropic use rose significantly from 1994-2006, and antipsychotic prescriptions used to treat aggression increased 7.6 fold in youth between 1993-1998 and 2005-2009.[4] A similar pattern emerges for children with neurodevelopmental disorders. For instance, pediatric stimulant use for ADHD experienced an annual growth rate of 3.4% annually from 1996-2008 before leveling off.[5] Moreover, the presence of disruptive behavior is known to increase the likelihood that children with autism will be prescribed psychotropic medication.[6] Overall, these national patterns suggest that effective behavioral interventions may be underutilized.

The underutilization of behavioral interventions occurs prominently in Mississippi, particularly among children diagnosed with ADHD, the most common neurodevelopmental disorder. Nationally, Mississippi ranks 6th in the number of children with ADHD currently receiving medication treatment (74%) but ranks 48th in the number of children receiving behavioral interventions (44%).[7] Based on 2011 Medicaid data, the Centers for Disease Control indicates that Mississippi children ages 2-5 years with ADHD are significantly more likely to receive medication (73.2%) than behavioral treatment (56.4%).[7] The gap is even larger among families with private insurance (89% and 22.8% received medication and behavioral therapy respectively).[7] There are several factors and barriers that may explain this sizable gap. In Mississippi, qualified providers remain scarce, and evidence-based behavioral treatment options are often unavailable and/or are poorly integrated into community-based care, whereas medications are comparatively more accessible, available, and may offer acute symptom relief.[8] These trends are striking given recent evidence that behavioral interventions have greater cost-effectiveness than medications when sequenced consistent with consensus guidelines.[9]

Status of contemporary behavioral interventions. Behavioral interventions for disruptive behavior teach parents new skills and reorganize dysfunctional family interaction patterns to better manage problematic behavior. Best practice advisories recommend that physicians engage in evidence-informed discussions with parents of disruptive children to advise them on the benefits and components of effective behavioral interventions.[1-3] Key evidenced-based elements addressed in behavioral management that physicians and parents should be aware of to ensure receipt of standard of care behavioral treatment are displayed in the Table. For preschool-aged children, behavioral therapy is often superior to medication in reducing problematic behavior and increasing compliance, with treatment gains maintained even after treatment is over.[10] Thus, increasing access and availability to behavioral interventions for preschool children in Mississippi is one critical step in reversing the underutilization of behavioral interventions.

Introduction of an Evidence-based Behavioral Intervention to Mississippi

Parent-Child Interaction Therapy. Parent-Child interaction Therapy (PCIT) is a specialized evidence-based treatment initially developed for children with ODD, CD, or related behavior problems. Borrowing from social learning theory, operant conditioning, and attachment theory, PCIT works to improve the parent-child relationship and provides parents with effective, non-physical discipline techniques. Extensive research demonstrates the efficacy of PCIT in children ages 2-12 years old, and children who receive PCIT have decreased problem behaviors and improved family relationships with less parental stress and negativity.[11] Long-term benefits include reductions in delinquency risk and related outcomes in adolescence and later adulthood.[12]

PCIT treatment consists of two phases: Child-Directed Interaction (CDI) and Parent-Directed Interaction (PDI). In CDI, parents follow the child's lead during structured play sequences and acquire positive interaction skills that help foster a warm, healthy relationship. Skills include the use of positive praise, reflection of the child's speech, imitation of appropriate behavior, behavioral descriptions, and enthusiasm/enjoyment during play. During child-led play interactions, parents are also coached to avoid asking questions, giving commands, or making negative/critical statements. In PDI, parents learn discipline skills including selective attention and giving effective time outs that are generalized from the clinic to the home setting.

PCIT is unlike talk-therapy and is set apart by its use of live therapist coaching to the parent through an audio communication earpiece. This provides parents with real-time feedback in acquiring parenting skills while observing play interactions through a one-way mirror. Importantly, PCIT is data-driven and involves ongoing assessment of behavioral change or progress. Treatment is discontinued only after parents reach quantifiable mastery of CDI/PDI skills and gain confidence with independently implementing behavior management techniques.

Establishing PCIT in Mississippi. In October 2015, The Mississippi Council for Developmental Disabilities (MSCDD) sponsored the initiation of a PCIT program through the Center for Advancement of Youth (CAY) at UMMC. This project provided the opportunity to establish the first PCIT program in Mississippi. Five therapists (four Ph.D. level clinical psychologists and one social worker) underwent formal PCIT training certification in the Jackson area. The clinical service began in February 2016 and rapidly filled a critical treatment service gap, particularly for pre-school aged children. Assessment of clinical outcomes occur each session and are ongoing, but preliminary program evaluation results are highly promising.

Continuum of Care through CARE. The program received additional funding to expand services to children and adolescents who may be at risk for but subclinical for behavior problems. This effort results in a continuum of care supporting intervention of behavioral problems in youth. Certified PCIT therapists will become master trainers in Child-Adult Relationship Enhancement (CARE), an extension of PCIT that can be disseminated to any adult who interacts

Table. Key evidenced-based elements in behavior management

Element	Description	Example
Modeling & Imitation	Demonstrate prosocial behavior including getting along and handling conflict calmly. Smile and praise others and children may be more likely to do the same with peers.	Follow the child's lead in play, mimic actions.
Praise	Positive comments to motivate specific pro-social behavior or compliance.	"Nice job making your bed!" "Great job minding so quickly!" instead of a vague "Good job"
Strategic Attention	Enthusiastic praise for appropriate behavior	"I like how you are playing quietly!" "Awesome sharing!"
Selective Ignoring	Turn or walk away contingent on minor misbehaviors such as whining, sassing, protesting, and crying.	Give no eye contact or comments and return attention once behavior stops.
Prompt	A cue or hint for someone to initiate a target behavior.	"When we walk in the hall, we keep our hands to ourselves".
Effective Instructions	Specific instructions given one at a time and directly rather than indirect, vague or general.	"Put your backpack in your room" instead of "Let's clean your room".
Positive Practice	Practice the correct behavior after a misbehavior.	Pick up crayons after the child scattered crayons on the floor. Next require the child to pick up crayons in other areas.
Response Cost	Remove access to a valued object, privilege, or activity contingent on misbehavior.	Removing earned tokens after a misbehavior; loss of screen time for violating rule.
Time Out	Removal of attention for misbehaviors. In adolescents, may take form of grounding that varies in time according to misbehavior.	Place child in a designated area without access to privileges or attention for a given time period.
Restitution	Return the environment to its original condition.	Picking up crayons that were scattered all over floor.
House Rules	A list of 3-5 rules stated positively.	"Play gently"/"Safe hands" instead of "No hitting".
Token Economy, Point System, Sticker Charts	Provide the child with tokens, stickers, or points contingent upon task completion or other specified activity. The child then may exchange tokens for an object or activity.	Rewards can be normalized, to which child has access regularly, do not need to cost money: TV time, later bedtime, choose family dinner if possible, dessert.
Behavioral Contract	Specifies expectations, rewards, and consequences in the form of a written contract.	Allowance contract, cell phone usage contract, chore contract.
Communication Skills & Conflict Management	Explicit instructions on listening, communicating parental expectations, providing youth choices, and conflict resolution.	Discuss turn taking rules before beginning an activity. Explain in advance that noncompliance does not earn privileges.
Daily Report Card	List of 4-6 behavior expectations at school that is tracked by teacher. Privileges are earned for positive school behavior.	Child will participate in all reading activities; Child will raise hand before speaking.

with children (e.g., paraprofessionals, teachers, child advocates, and daycare providers). CARE trainings provide complementary techniques derived from PCIT that can be easily disseminated into community-based settings. In this way, CARE resembles a primary and secondary prevention model designed to improve adults' interactions with youth, as one mechanism to reduce problematic child behavior.

Conclusions

Childhood behavior problems create substantial impairments for children and their families, interfering with healthy psychosocial development. Adverse outcomes associated with behavior problems can be mitigated by evidence-based behavioral interventions, but such treatment is lacking in Mississippi. This contributes to the underutilization of behavioral interventions. The PCIT program at UMMC is making headway to address this gap by developing an evidence-based continuum of care for youth with behavioral problems through the provision of PCIT treatment services and the introduction of CARE trainings that target prevention of behavioral problems in at risk populations (i.e., neurodevelopmental disorders). Mississippi physicians will be crucial to help parlay this evidence-based service into local communities by supporting policies and expansions, calling for local dissemination of evidence-based interventions, and directing patients to behavioral health practitioners who demonstrate adherence to behaviorally-focused treatment for disruptive behavior. Such cooperation across medical and behavioral services is imperative to maximizing the positive outcomes for families. Practitioners who are interested in clinical services or establishing of a continuum of care in their area are encouraged to contact the PCIT program for more information (Figure).

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Figure. Objectives of PCIT and contact information

Parent Child Interaction Therapy (PCIT) is an empirically based treatment for families of children ages 2-7 years with behavioral problems

Treatment goals in PCIT include:

- ✓ Reductions in child disruptive behavioral symptoms
- ✓ Improved parent-child relationship/attachment, increased physical warmth
- ✓ Increased parental authority/age-appropriate discipline and child compliance
- ✓ Increases in parenting confidence

Referrals to the PCIT program at UMMC can be made by contacting CAY at (601) 984-4465.

For questions or inquiries about PCIT or CARE training, please contact the senior, corresponding author at dsarver@umc.edu.