


Working with Children with ADHD and their families



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Acknowledgments

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NICHD

Diagnosis of ADHD (DSM-IV)


IA. Six or more of the following symptoms of inattention have been present for at least 6 months to a point that is inappropriate for developmental level:

- Often does not give close attention to details or makes careless mistakes
- Often has trouble keeping attention on tasks or play activities.
- Often does not seem to listen when spoken to directly.
- Often does not follow through on instructions
- Often has trouble organizing activities.
- Often avoids, dislikes, or doesn't want to do things that take a lot of mental effort
- Often loses things needed for tasks and activities
- Is often easily distracted.
- Is often forgetful in daily activities.




Diagnosis of ADHD (DSM-IV)

- **IB. Six or more of the following symptoms of hyperactivity-impulsivity have been present for at least 6 months to an extent that is disruptive and inappropriate for developmental level:**
- **Hyperactivity**
 - Often fidgets with hands or feet or squirms in seat when sitting still is expected.
 - Often excessively runs about or climbs when and where it is not appropriate (adolescents or adults may feel very restless).
 - Often gets up from seat when remaining in seat is expected.
 - Often has trouble playing or doing leisure activities quietly.
 - Is often "on the go" or often acts as if "driven by a motor".
 - Often talks excessively.
- **Impulsivity**
 - Often blurts out answers before questions have been finished.
 - Often has trouble waiting one's turn.
 - Often interrupts or intrudes on others (e.g., butts into conversations or games).




Diagnosis of ADHD (DSM-IV)



II. Some symptoms that cause impairment were present before age 7 years.
 III. Some impairment from the symptoms is present in two or more settings (e.g. at school/work and at home).
 IV. There must be clear evidence of clinically significant impairment in social, school, or work functioning.
 V. The symptoms do not happen only during the course of a Pervasive Developmental Disorder, Schizophrenia, or other Psychotic Disorder. The symptoms are not better accounted for by another mental disorder (e.g. Mood Disorder, Anxiety Disorder, Dissociative Disorder, or a Personality Disorder).

Based on these criteria, three types of ADHD are identified:
 IA. **ADHD, Combined Type:** if both criteria IA and IB are met for the past 6 months
 IB. **ADHD, Predominantly Inattentive Type:** if criterion IA is met but criterion IB is not met for the past six months
 IC. **ADHD, Predominantly Hyperactive-Impulsive Type:** if Criterion IB is met but Criterion IA is not met for the past six months.

ADHD



- Prevalence rates vary (1-22%)
- Age of onset usually 3½ to 6 years
- Hyperactivity sx appear before inattentive sx
- More boys than girls for hyperactive/impulsive subtype
 - No gender differences for inattentive subtype
- Most agree there is a biological basis for ADHD
- 70% of children with ADHD continue to have sx into adolescence and adulthood
 - ADHD symptom persistence is associated with initial severity of hyperactive-impulsive behavior, comorbid externalizing behavior, poor family relationships (particularly conflict in parent-child interactions), and maternal depression.

ADHD Comorbidity

- ADHD is associated with:
 - poor motor coordination
 - poorer performance on standardized tests of intelligence and academic achievement
 - higher rates of learning disabilities
 - peer rejection
 - poorer parent-child relationships



ADHD Comorbidity



- In community samples, a diagnosis of ADHD is associated with a 10.7-fold greater risk of ODD or CD.
- In a large clinic-referred sample of 7- to 9-year-old children with ADHD, only 30% were diagnosed with ADHD alone
 - 32% were diagnosed with ADHD and ODD/CD
 - 26% with ADHD, ODD/CD, and anxiety
- Children with comorbid ADHD + ODD or CD are rated by parents and teachers as more impulsive and hyperactive than children with ADHD alone and have higher risk for developing antisocial behavior in adolescence, at least for boys.

Treatment options for preschoolers with ADHD

- Stimulant medication
 - Small to moderate effect sizes
 - More side effects in preschoolers than school-age children
- Behavioral interventions
 - Limited data
 - Strayhorn and Weidman—"Parent Child Interaction Training"
 - Cunningham—COPE (group)
 - Pisterman (mostly group)

The case for applying PCIT to children with ADHD

- PCIT outcome and follow-up studies have shown statistically and clinically significant improvements in symptoms of hyperactivity and inattention in preschool-age children treated for their disruptive behavior
- Studies have found ADHD symptom reductions of sufficient magnitude to result in a proportion of children no longer meeting diagnostic criteria for ADHD after treatment (71% pre to 15% post)
- Before treatment, 65% of children in the treatment-completer group and 78% of children in the dropout group met criteria for ADHD
 - 10-30 months later: 35% of completers met criteria for ADHD, compared to 70% of dropouts

The case for applying PCIT to children with ADHD

- National ADHD experts (three child psychologists and one child psychiatrist, all familiar with PCIT) rated PCIT for ADHD (scale 1-9).
 - Desirability = 8.5
 - Feasibility = 8.0
 - Participation = 8.0
 - Outcomes = 8.0
 - Room for improvement = 2.0
 - Unanimously rated it as a "should do" intervention




Tailoring PCIT to children with ADHD

Pre-treatment assessment

- Include measures of inattention, hyperactivity, and impulsivity
 - CBCL
 - BASC
 - Vanderbilt
 - Conners
- Get ratings from multiple raters
 - Parents
 - Teachers
- Use observational measures
 - REDSOCS

Adapted from McNeil & Hembree-Kigin (2010). *Parent-Child Interaction Therapy*. Springer.

Psychoeducation



- Etiology
- Course
- Pharmacotherapy options/effectiveness
 - Consider delaying medication until PDI (or never)
- School-based interventions
- Support groups for parents of children with ADHD

Adapted from McNeil & Hembree-Kigin (2010). *Parent-Child Interaction Therapy*. Springer.


CDITeach

- Emphasize:
 - How behavior descriptions help children focus
 - Provides positive reinforcement for on-task behavior
 - Helps children organize thoughts
 - Promotes development of self-talk
 - Children with ADHD need more direction and support from parents

Adapted from McNeil & Hembree-Kigin (2010). *Parent-Child Interaction Therapy*. Springer.

CDI Coaching


- Prompt labeled praises for:
 - Sitting still
 - Thinking before acting
 - Trying even when it's hard
 - Sticking with it
 - Staying calm
 - Slowing down
- Help parents ignore negative responses to labeled praise




Adapted from McNeil & Hembree-Kigin (2010). *Parent-Child Interaction Therapy*. Springer.

CDI Coaching

- When coaching parent to ignore obnoxious behavior, consider levels of ignoring
 - Distraction
 - Averted gaze
 - Turning back
 - Maybe not best approach



CDI Coaching

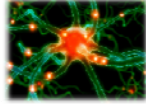


- Consider restricting play to table activities
 - Shaping child to table activities
 - Reducing stimulation
- Coach parents to ENJOY
 - High energy kids benefit from more animation
 - Parents may be low affect
- But not too much...
 - Avoid over-stimulation

Adapted from McNeil & Hembree-Kigin (2010). *Parent-Child Interaction Therapy*. Springer.

CDI Coaching

- Be aware that parents may have ADHD symptoms as well
 - Difficulty focusing on child
 - Over-stimulating
 - Talk too much
- Point out child's positive attributes
 - Parents of children with ADHD (and DBD) often get negative feedback on their parenting skills




Adapted from McNeil & Hembree-Kigin (2010). *Parent-Child Interaction Therapy*. Springer.

Parent-Directed Interaction

- In PDI Teach, emphasize:
 - Children with ADHD benefit from clear, direct commands given one-at-a-time
 - Consequences need to be immediate and, often, frequent
 - Need for "industrial strength" parenting
 - Continued need for positive reinforcement
- In PDI coaching:
 - Be aware that parents may have ADHD symptoms too
 - Difficulty following flow chart
 - Not allowing sufficient "dawdling time"
 - Giving rapid-fire commands

Adapted from McNeil & Hembree-Kigin (2010). *Parent-Child Interaction Therapy*. Springer.

PDI Coaching

- 
- Include relevant generalization activities
 - Doing homework
 - Staying with parent in public (not running away)
 - Implement appropriate house rules
 - No sassing
 - No hurting

Adapted from McNeil & Hembree-Kigin (2010). *Parent-Child Interaction Therapy*. Springer.


Post-treatment

- Typically see oppositional and attention-seeking behaviors are much improved
- Limited improvement in hyperactivity, impulsivity, and inattention
 - Consider booster sessions
 - Prepare parents that condition is chronic and additional “tune-ups” may be necessary as child develops

Adapted from McNeil & Hembree-Kigin (2010). *Parent-Child Interaction Therapy*. Springer.

Evaluation of PCIT for children with ADHD

- Project SHAPE
 - Five-year NIMH project designed to develop and evaluate a PCIT group treatment protocol for young children with ADHD with and without co-morbid ODD



Project SHAPE Research Design

- 128 children with ADHD
- 64 with co-morbid ODD
- Randomized to Group or Individual PCIT


	Group PCIT	Indiv PCIT	Total
ADHD only	32	32	64
ADHD + ODD	32	32	64
Total	64	64	128

PROJECT SHAPE

- This study will investigate the association between PCIT treatment format (group versus individual) and outcome relative to comorbid diagnostic status.
- Hypotheses:
 - We expect a group format to be more appropriate for families of children with ADHD only, whereas individual treatment will be better for children with ADHD + ODD
 - This study will also begin to investigate cost factors of group and individual PCIT

Project SHAPE Measures

<ul style="list-style-type: none"> ■ Family Measures <ul style="list-style-type: none"> ■ Parent ratings of child <ul style="list-style-type: none"> • ADHD symptoms • Disruptive behaviors • Functional Impairment ■ Parent self-ratings <ul style="list-style-type: none"> • Internalizing behavior • Externalizing behavior ■ DPICS observations <ul style="list-style-type: none"> • Parenting skills • Child compliance 	<ul style="list-style-type: none"> ■ School Measures <ul style="list-style-type: none"> ■ Teacher ratings of child <ul style="list-style-type: none"> • ADHD symptoms • Disruptive behavior ■ Classroom observations <ul style="list-style-type: none"> • Inappropriate behavior • Off-Task behavior • Noncompliant behavior
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Child Diagnoses

- ADHD (all children)
 - DISC Parent Diagnostic Interview
 - CBCL Parent Rating Scale
 - CTRS Teacher Rating Scale
- Comorbid ODD (1/2 of children)
 - DISC Parent Diagnostic Interview
 - CBCL Parent Rating Scale

Family Demographic Information

- Child age = 5.4 years
- Child sex = 78% male
- Child race
 - 78% white
 - 3% African American
 - 14% bi-racial
 - 2% other
- Yearly family income
 - Mean = \$54K
 - Range = \$24K - \$123K



Number of Sessions Attended

INDIVIDUAL PCIT

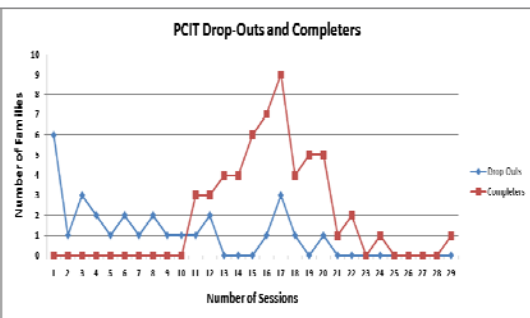
- Completers = 17
 - Range = 10 - 31
- Dropouts = 12
 - Range = 0 - 21

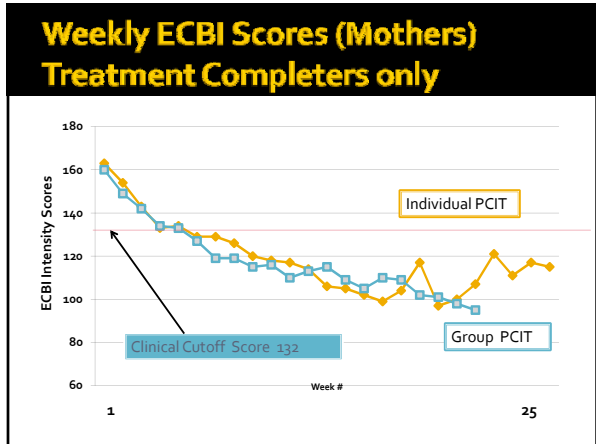
GROUP PCIT

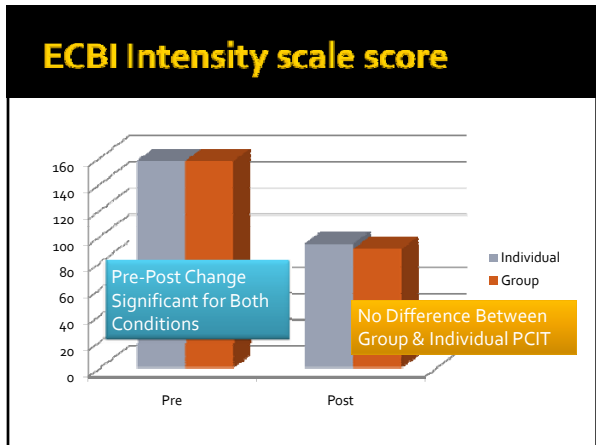
- Completers = 17
 - Range = 10 - 23
- Dropouts = 13
 - Range = 0 - 16

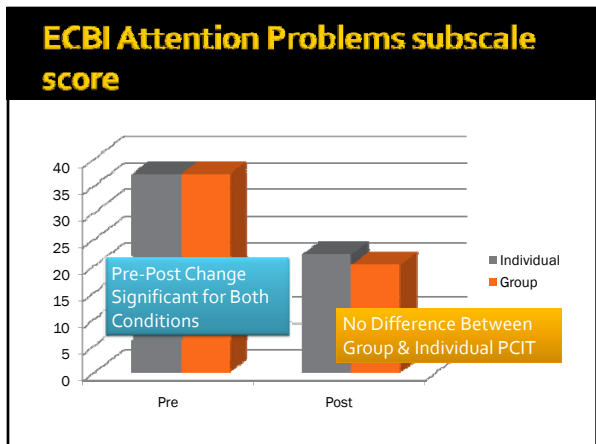
Currently in Treatment *n* = 17

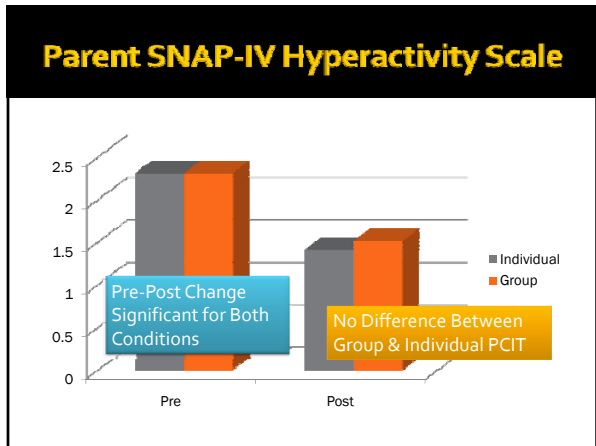
PCIT Treatment Duration

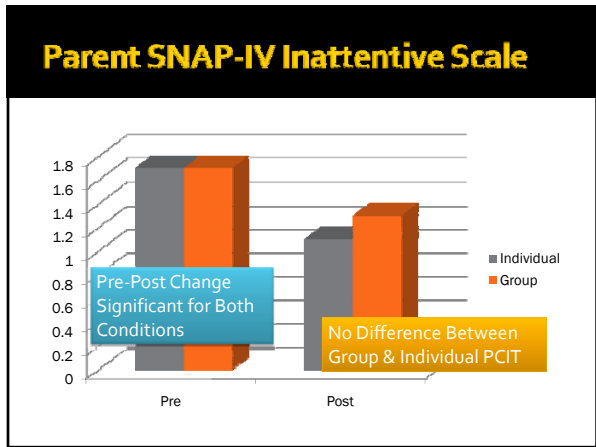


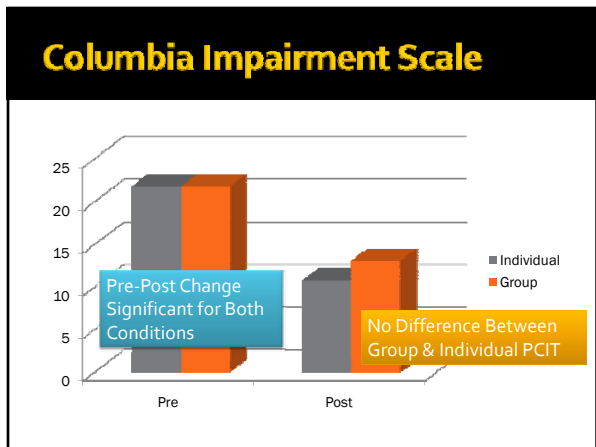


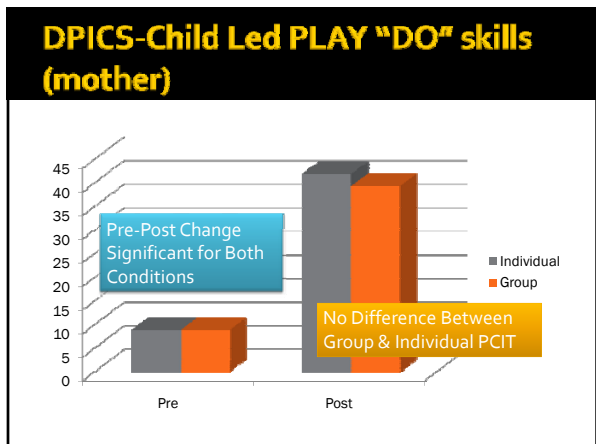


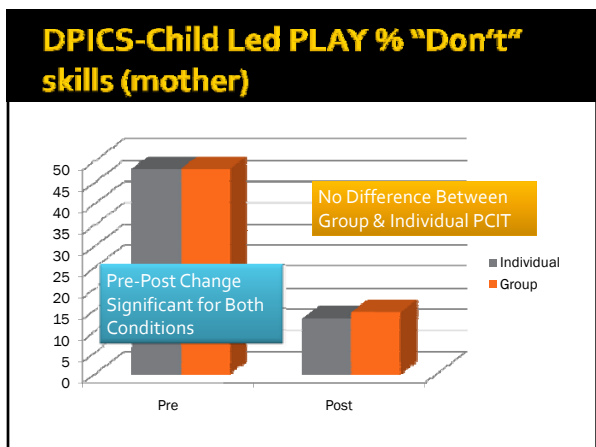


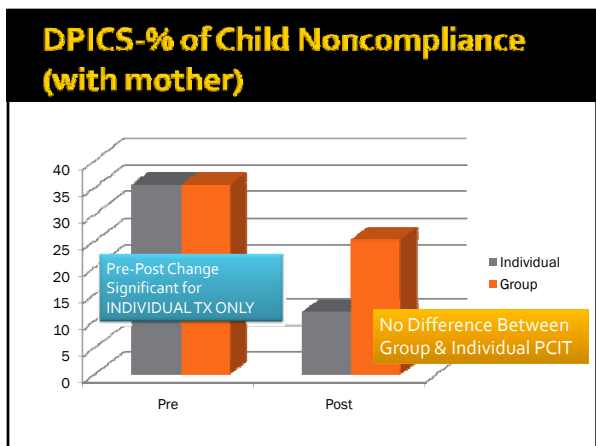


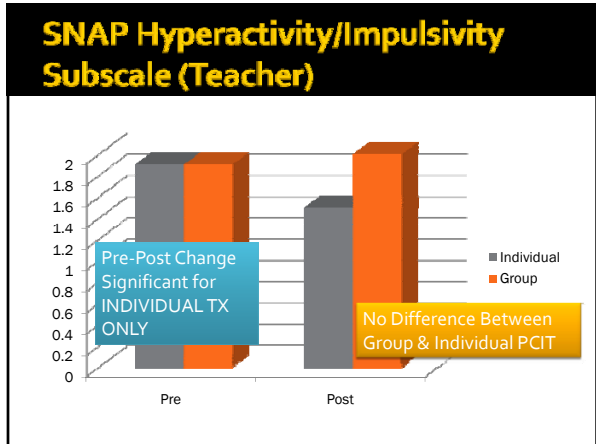














No Significant Pre-Post Change for Any Other School Behavior Measure

- T-SNAP-IV Inattention ratings
- CTRS teacher ratings
- REDSOCS observations



Conclusions from Project SHAPE



- Both formats of PCIT effective for children with ADHD by parent-report and behavioral observations
- Little evidence of school generalization from either format of PCIT for children with ADHD
- The few differences between individual and group PCIT increase importance of **cost effectiveness** analyses

TREATMENT IMPLICATIONS

- Group treatment may be an effective option for children with ADHD (with or without ODD)
- Treatment effects may not generalize, so additional school intervention may be warranted



Classroom consultation


- Give teacher information on PRIDE skills
- Encourage use of PRIDE skills in class
- Encourage "discipline ladder"
- Recommend teachers implement behavioral strategies and supports
 - Reduce distractions
 - Have child sit by teacher
 - Daily report card
 - Functional Behavior Analysis
 - Behavior plan written into IEP




What's a Coach to Do?

- In CDI-2, if 3 y.o. Miguel leaves the toys on the table to wander aimlessly around the room, turning on/off the lights:



What's a Coach to Do? 

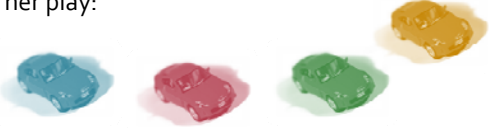
- a. Coach the parent to follow Miguel around the room as this is normal behavior for his age. Coach the parent to say "I like it when Miguel plays with the toys."
- b. Enter the room and model what the parent should do to engage Miguel in appropriate play
- c. Coach the parent to stop special time and tell Miguel that there is no more playing unless he comes back to the table.
- d. Coach the parent to ignore the behavior and sit quietly until Miguel returns to the toys. Praise Miguel for coming back to the table.
- e. Coach the parent to continue to play with the toys, increasing animation of the play and choosing activities of high interest to Miguel. Praise Miguel when he comes back to the table.

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What's a Coach to Do?

- It is CDI-5 and 4 y.o. Tamika begins to race her cars across the table, speeding them from end to end, talking and giggling louder and louder, and becoming increasingly animated in her play:



What's a Coach to Do?



- a. Coach the parent to follow Tamika's lead. Imitate her play, matching her enthusiasm.
- b. Coach the parent to turn her back and ignore Tamika's wild play, choosing a new activity to play with in a calm manner. Praise Tamika when she switches to the new activity.
- c. Coach the parent to model gentle play with the cars, describing in a slower, quiet voice to settle Tamika down. Praise Tamika for similar play.
- d. Briefly help the parent determine if this behavior is likely to escalate into wild play or if it seems acceptable for this child. Coach accordingly, either having the parent model and attend to calmer play, or coaching the parent to continue following at Tamika's pace.
- e. Coach the parent to praise Tamika for her playfulness and continue with PRIDE skills. Note that boisterous play is normal for 4 year olds.

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QUESTIONS?
