

# The Society for Clinical Child and Adolescent Psychology (SCCAP): Initiative for Dissemination of Evidence-based Treatments for Childhood and Adolescent Mental Health Problems

With additional support from Florida International University and The Children's Trust.



# Workshop

## Time Out From Positive Reinforcement for Children with ADHD

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# Conflicts of Interest

- No financial conflicts.
- Current user of time out for three children.
- Recipient of multiple time outs.

# Part 1 of 3

# Attention-deficit hyperactivity disorder (ADHD)

- ADHD is characterized by developmentally inappropriate levels of:
  - Inattention
  - Hyperactivity
  - Impulsivity
- ADHD behaviors are developmentally inappropriate, pervasive, chronic, and result in considerable impairment in social and academic functioning.

# Dennis the Menace



"I SHOULDN'T COMPLAIN ABOUT DENNIS. HE MAKES ALL OF MY OTHER STUDENTS SEEM WELL-BEHAVED."

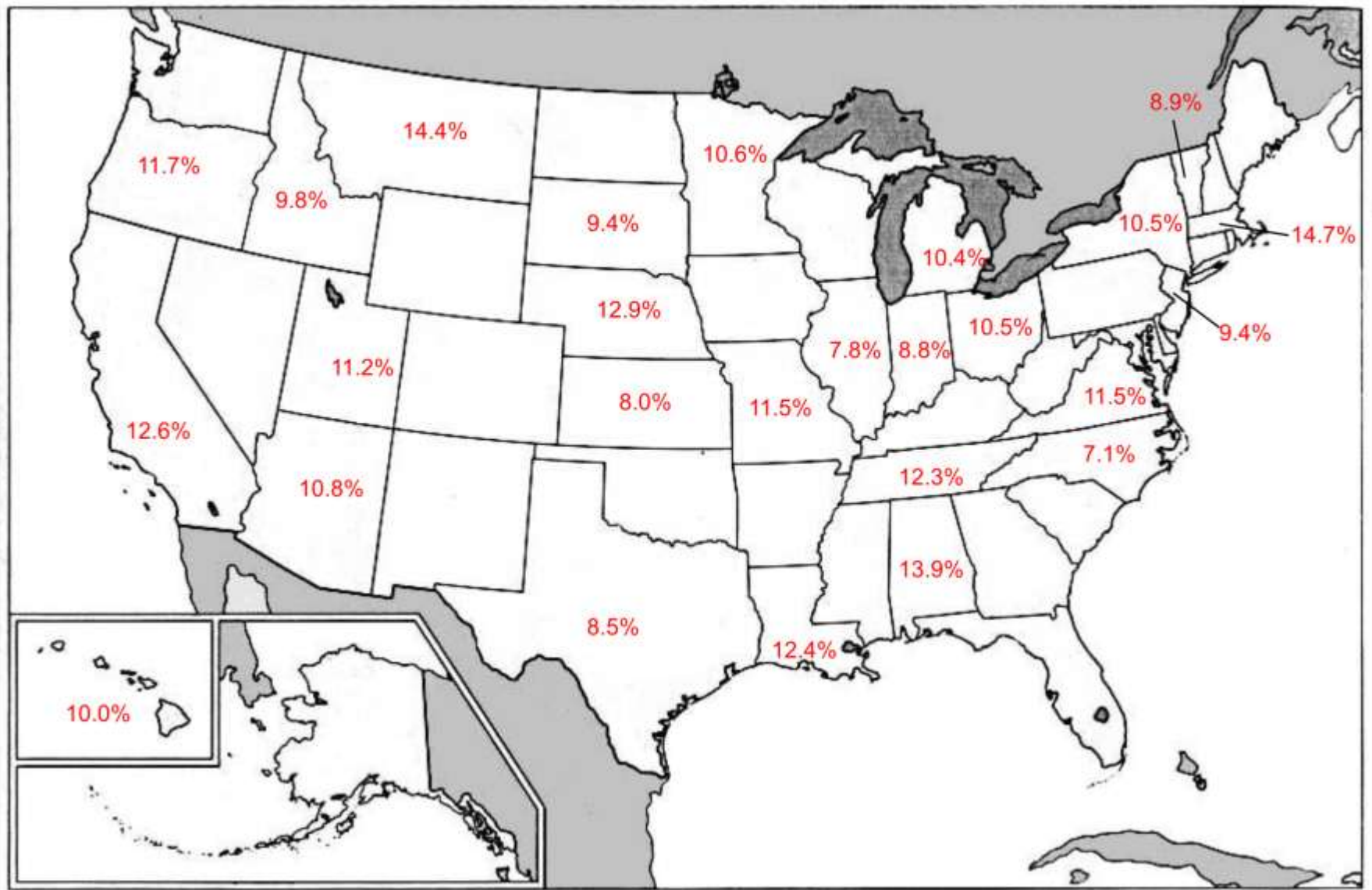
# History of ADHD

- Heinrich Hoffman, a German psychiatrist, authored a widely-published children's book of short stories in 1844.
  - “Fidgety Phillip”
  - “Johnny Look-in-the-Air”
    - “The Story of Cruel Frederick”
    - “The Story of Little Suck a Thumb”
    - “The Dreadful Story of Pauline and the Matches”

# Prevalence



# Percent of diagnosed/suspected children with ADHD in classrooms



# Impact of ADHD - Impairment

# Domains of Impairment

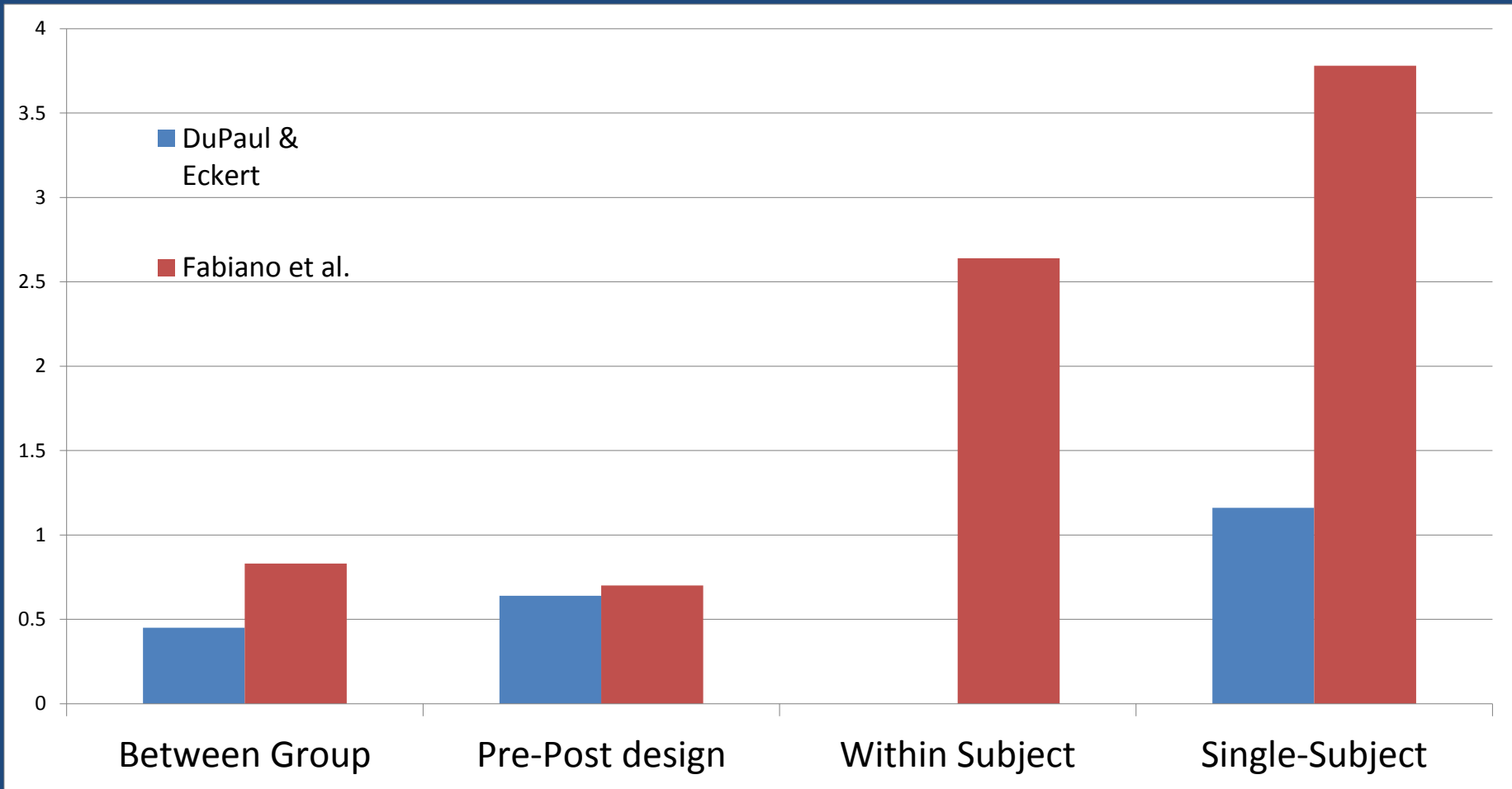
- Peer relationships
- Adult relationships
- Sibling relationships
- Academic Progress
- Self-esteem
- Group functioning
- Associated problems

# Evidence-Based ADHD Treatments

- Behavior Modification
  - Classroom Contingency Management
  - Behavioral Parent Training
  - Peer Interventions in Recreational Settings
- Stimulant Medication
- Combination of Behavior Modification and Stimulant Medication

DuPaul & Eckert, 1997; Fabiano, et al., 2009; Greenhill & Ford, 2002; Hinshaw et al., 2002; MTA Cooperative Group, 1999; Pelham & Fabiano, 2008; Pelham, Wheeler, & Chronis, 1998

# ADHD Treatment Effect Sizes



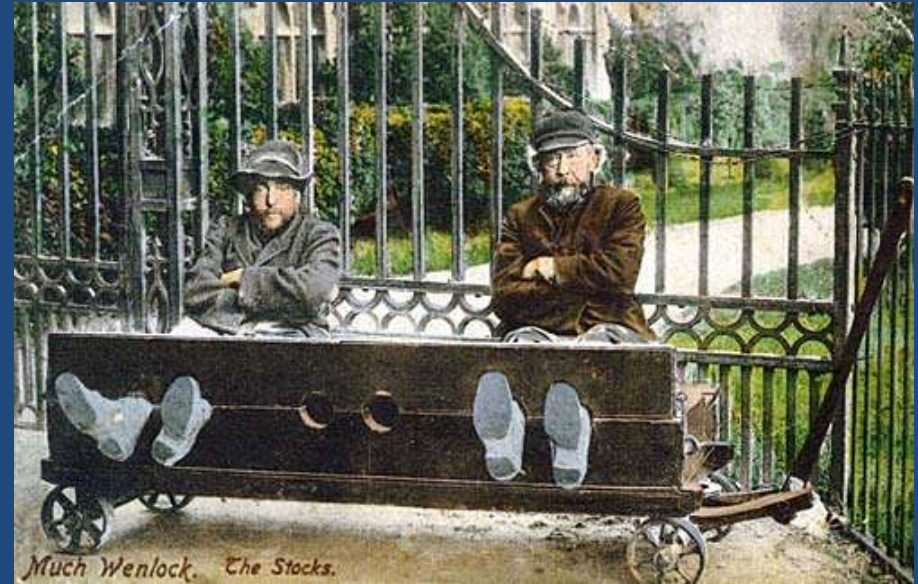
DuPaul & Eckert, 1997

Fabiano, Pelham, Coles, Gnagy, Chronis-Tuscano, & O'Connor, 2009

# Time Out for ADHD

# History of Time Out

- Principles associated with time out have been around for generations.



# Development of Time out

- A.W. Staats (1962)
  - *“I extended those principles in originating the time out procedure with my daughter when she was two. When she displayed inappropriate behavior I would pick her up and put her in her room in her crib and indicate she had to stay there until she stopped crying. If we were in a restaurant or other public place I would pick her up and go outside, without any rewarding social interaction. I disseminated the concept and practice (see also Staats, 1971)—they were used first in a publication of a student--and time out is now a household word.”*

<http://www2.hawaii.edu/~staats/contributions.htm>





Julia

- Connie Hanf developed a two-stage approach to parent training
  - Child directed interaction
  - Parent directed interaction
- Time out was taught to parents during the parent directed interaction

- Gerald Patterson and colleagues also taught time out to parents (Patterson, 1975).
  - “The child is removed from the situation where he receives many reinforcers, and he is placed in a situation where he receives few, if any, reinforcers.”

- Rex Forehand and his students have conducted considerable work on time out as an intervention.
  - Parametric studies
  - Efficacy studies
  - Developed manuals for parents and parent trainers

# Prevalence of Time out Usage

- Survey of parents of a child 2-11 at well-child visit (Barkin et al., 2007).
  - 45% used time out in past month
  - 42% removed privileges in past month
- Time out was the most common recommendation by pediatricians for aggressive youth (Scholer et al., 2006)
- Time out one of the most common interventions used by parents of children with ADHD (Bussing et al., 2006)
- Mothers of children with ADHD administer more time outs than comparison mothers (Stormont-Spurgin & Zentall, 2006)

# Time out is now widely disseminated

- Most parents/teachers are now at least familiar with the concept of time out.
- Super Nanny/Nanny 911



# Problems with dissemination

- “It is important to follow the procedures exactly as we present them. Minor changes can decrease the effectiveness of time out significantly!” Forehand & Long, 1996
- One cost of widespread dissemination is drift/reinvention (Rogers, 2003)
  - \*e.g. 1/3 of parents report their discipline approach is ineffective (Barkin et al. (2007)

# Famous Ray's Pizza

- 49 restaurants of this name or some variant in NYC (even one “Not Famous Ray’s!”; wikipedia.org, 2012).





# Time out can be controversial

- “The point is enforcement and order, not teaching and reflection. Thus, rather than helping a child to think about the effects of his aggression on others, he is simply informed that hitting is ‘unacceptable’; reasons and morality don’t enter into it. Then he is forced to ‘stand in the naughty corner.’” (Kohn, 2005)
- Corporal punishment

# Parenting a child with ADHD

- Important to acknowledge parenting a child with ADHD is different than parenting a child without ADHD.
  - Variety of parenting
  - Magnitude of parenting
  - Frequency of parenting

# Part 2 of 3

# Time Out Principles

- “Time out from positive reinforcement”
- Time out is not a one shot approach
  - Includes a collection of environmental antecedents, setting events, and contingencies
- Time out conditions should include no positive reinforcement
- Know it’s working if you don’t have to use it very often
- Planning ahead for time out implementation is really important

# Time In Should be Positive/Rewarding

- Environment is positive and reinforcing.
  - Time In
  - The effectiveness of time out should be directly related to the reinforcing value of the environment.
    - Free play vs. homework
    - Chores vs. Swimming pool

# Should Time **in** be taught before Time **out**?

- Overall, there are few studies to guide clinicians in the best approach to sequencing
  - Eisenstadt et al. (1993) suggests teaching time out first resulted in better outcomes relative to teaching positive child interaction strategies first in a sample of children with conduct problems.

# Time out is a Collection of Behavioral Strategies Working in Concert

- Planning Ahead
- Effective Instructions/Commands
- Planned Ignoring
- Rule-setting and management
- Differential Attention to Alternative Behavior
- Contingency Management

# Time out Should not be Positive/Rewarding

- Different stimuli are reinforcing to different children.
- Time out can sometimes serve to allow escape/avoidance/gain of attention.
- A careful functional analysis of the child's behavior may be required.



# Effective Time out Procedures Suppress Behavior

- Time outs are *not* working if administered frequently.
- However, sometimes behavior gets worse before it gets better. . .
- Clinicians will find baseline measures of target behaviors will be a necessary component of outcome evaluations.

# Planning Ahead Contributes to Time out Effectiveness

- “Well begun is half done.” – Mary Poppins
- Time outs occur when child behavior is at its worst.
  - This is not the time to improvise/work off the cuff
- Different settings, different procedures

# Part 3 of 3

# Time Out Parameters

- MacDonough & Forehand, 1973
- Hobbs & Forehand, 1977
- Brantner & Doherty, 1983
- Harris, 1985

# Importance of Commands

Good Commands	Bad Commands
Issued once attention gained	Issued without attention
Issued in manageable steps	Multi-Step
Direct; Specific	Vague; Questions
Clear who should comply	Unclear (Let's. . . )
Limited to the present	Capture an extended time
Use positive phrasing	Start with "No" "Don't" "Stop" "Quit"
Followed by consequences (+ and -)	Repeated without consequences

. . . Some example videos

# Verbalized Reason

- Presence vs. Absence of an explanation for the reason for time out
  - No clear evidence that a reason/explanation enhances time out
    - *“You are going to time out because you hit your sister”*
  - May support consistent implementation by parent/teacher, however (Hobbs & Forehand, 1977)

# Warning Prior to Time out

- Presence vs. Absence of a warning
- Warnings may reduce the need for time outs, overall (Roberts, 1982).
  - Warnings serve as antecedents to behavior change.
    - *“You’re not listening. Pick up the toys or you will go to time out”*

# Administration of Time out

- Physical Intervention vs. Instructional Intervention
  - Not much research, but likely prudent to teach parents and teachers instructional administration



# Location of Time Out

- Isolation vs. Observation
  - Trade offs: Child sees what is being missed/can disrupt ongoing activity

# Duration

- There is considerable heterogeneity in the time out literature related to durations
- Range is from a few seconds to 3 or more hours
- Across studies, moderate time outs appear as good as longer time outs, in general
  - 4 min > 1 minute (Hobbs, Forehand & Murray, 1978)
  - 15/30 min > 1 minute (White, et al., 1972)
  - 2 to 4 min (Kapalka & Byrk, 2007)
  - 5 min = 15 min (Fabiano, Pelham, et al., 2005)
- Order effects (Kendall, Nay, & Jeffers, 1975)
  - 5 min worked until 30 min was introduced; then 5 min was no longer effective

# Release contingencies

- Contingent vs. Non-contingent release
  - Contingent release requires some duration of quiet/well-behaved time before time out is ended.
  - Non-contingent release means the time out ends with the time elapses, regardless of behavior.
- Commonly recommended but not well studied
  - Scarboro & Forehand (1975) found contingent release resulted in better time out behavior and suppressed negative behavior.

# Group vs. Individual Time out

- All members of a group are timed out if one member displays a negative behavior
  - Ross (1975) demonstrated the usefulness of this approach among siblings to target one's thumb-sucking
  - Kubany et al. (1971) – classroom
- May have merit if peer or sibling attention is thought to encourage negative behavior



# The Impact of Setting on Time Out

# Considerations for Time out in the home setting

- Location, Location, Location
- Siblings
- Observation vs. isolation

# Considerations for time out in the school setting

- Observation vs. isolation
- Teacher or other monitored?
- Careful attention to escape/avoidance functional relationships
- Peer attention
- Balancing ignoring with overall disruption

# Considerations for time out in other places

- Location, Location, Location
- Well-intentioned strangers
- Poorly-intentioned strangers
- Planning ahead
- Duration
- Back-up consequences



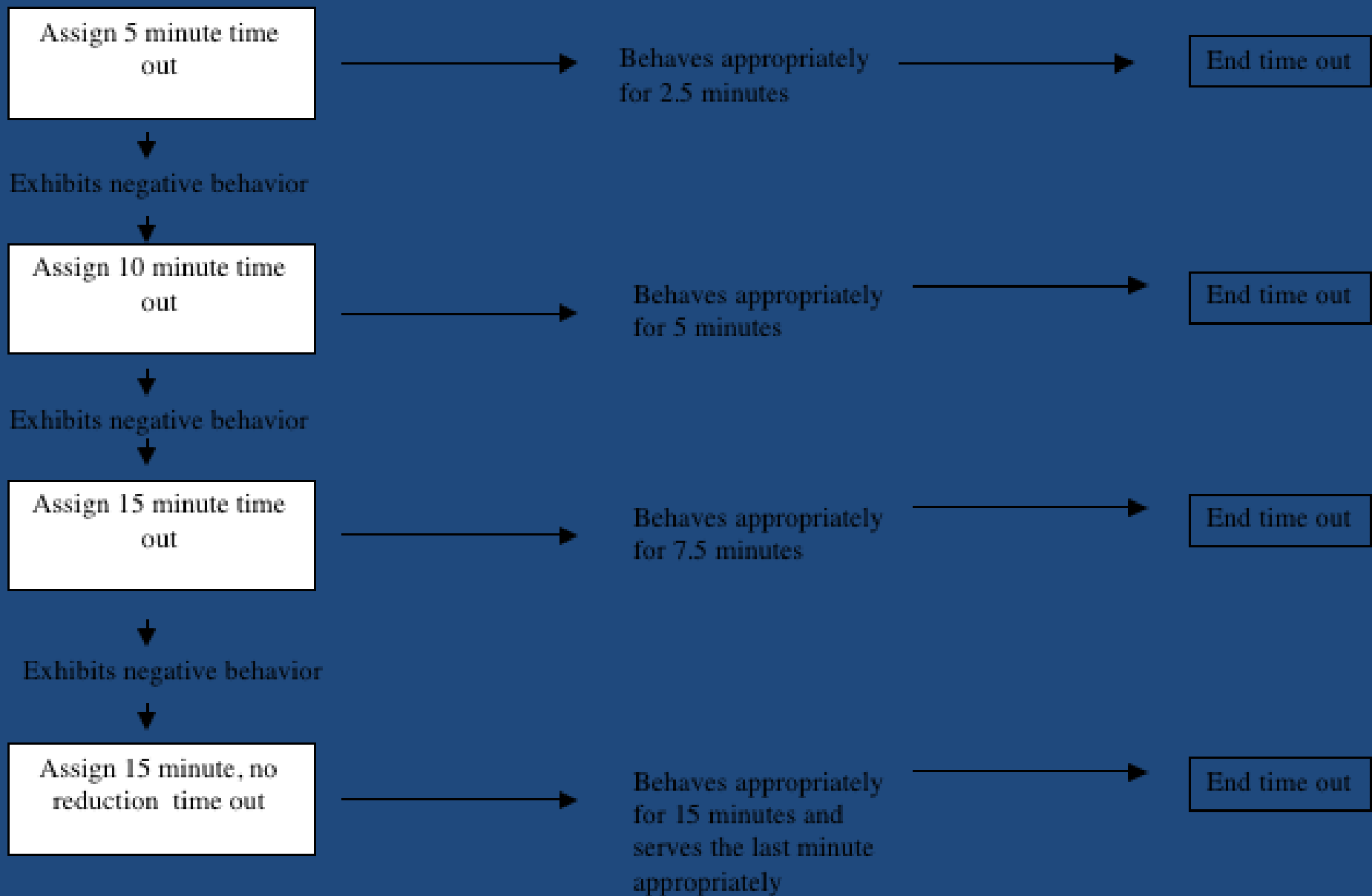
# Other Considerations

- Comorbidities
  - Conduct problems
    - Fabiano et al., 2004
    - Haas, Waschbusch, Pelham, et al., 2011
  - Callous-Unemotional traits
    - Haas et al., 2011
    - Hawes & Dadds, 2005
  - Anxiety
  - Cognitive ability

# Studies of Time Out as a Stand Alone Intervention for ADHD

# Fabiano, Pelham et al. (2004)

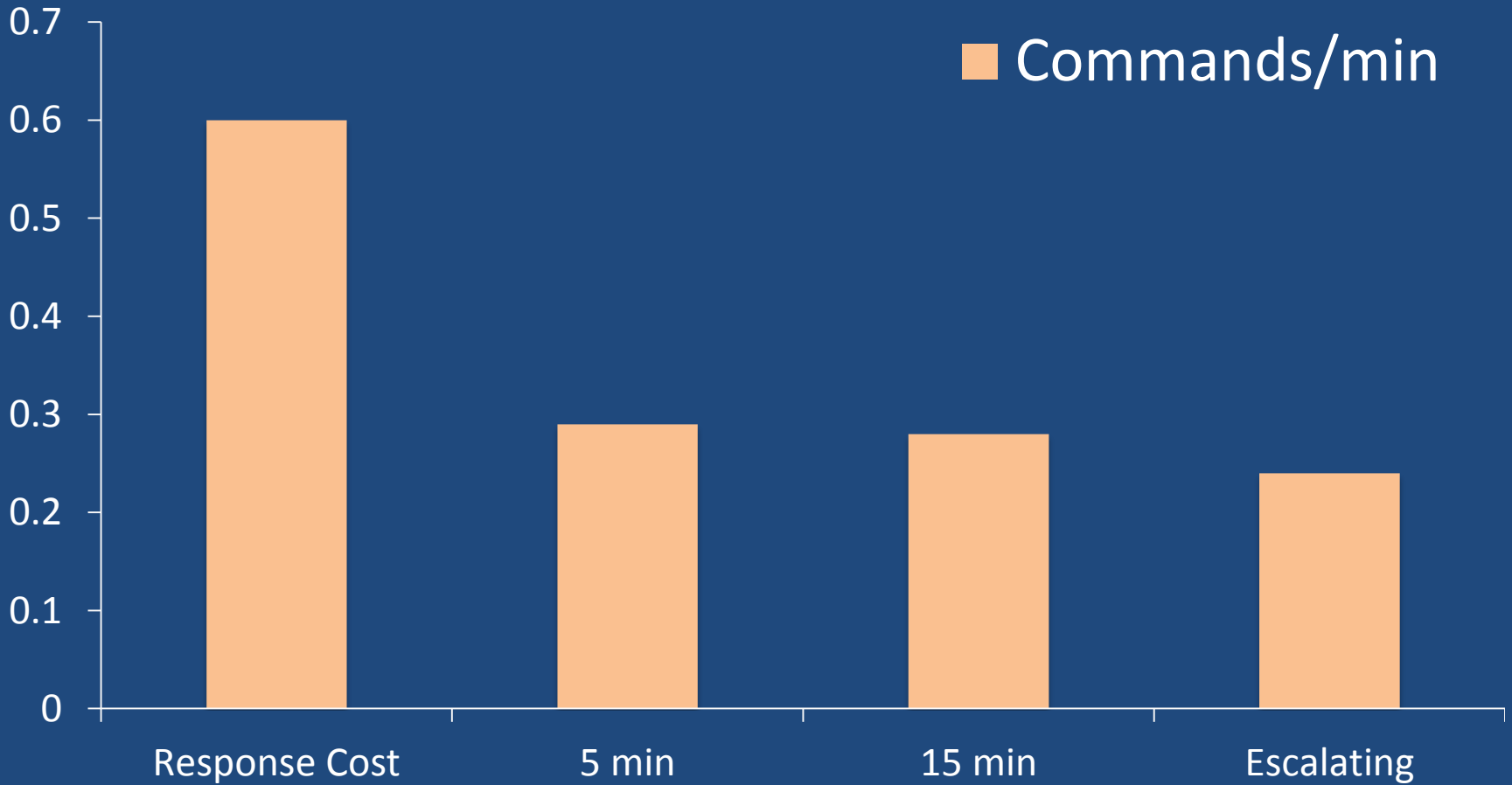
- Participants were children 6-12 with ADHD in a summer treatment program
- Settings included academic classroom and recreational activities
- Compared:
  - No time out
  - 5 minute time out
  - 15 minute time out
  - Escalating/De-escalating time out



Pelham, Greiner, & Gnagy, 1998

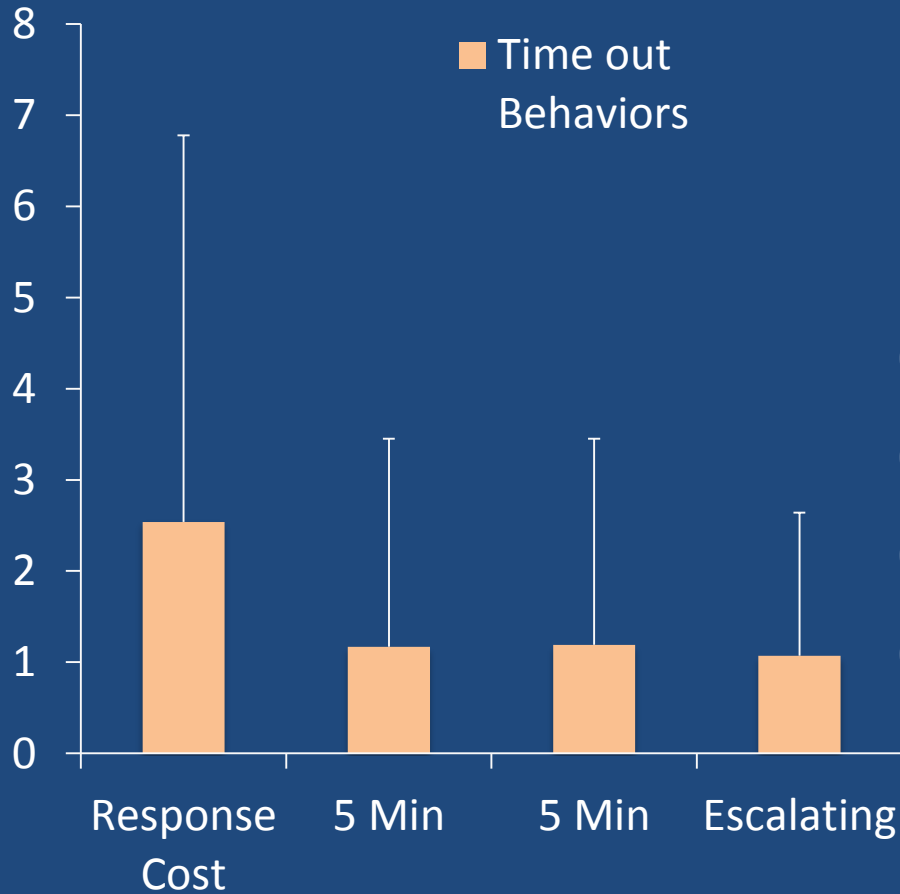
# Results

Commands/min

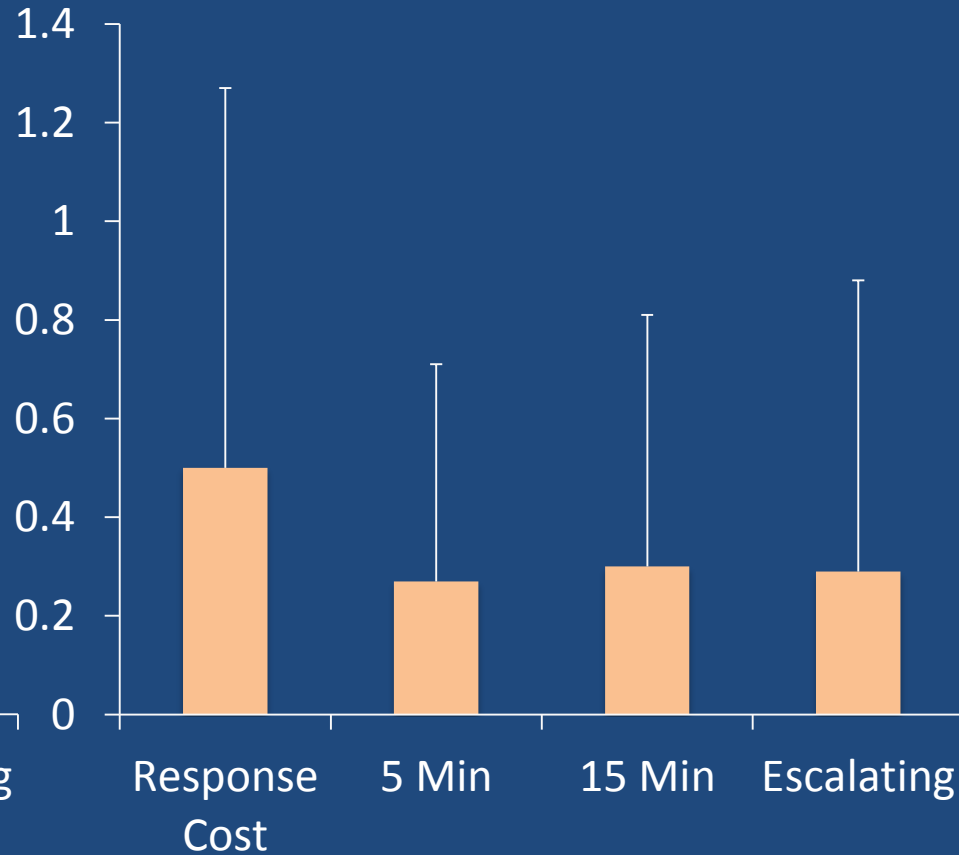


# Results

## Recreational Setting



## Classroom Setting

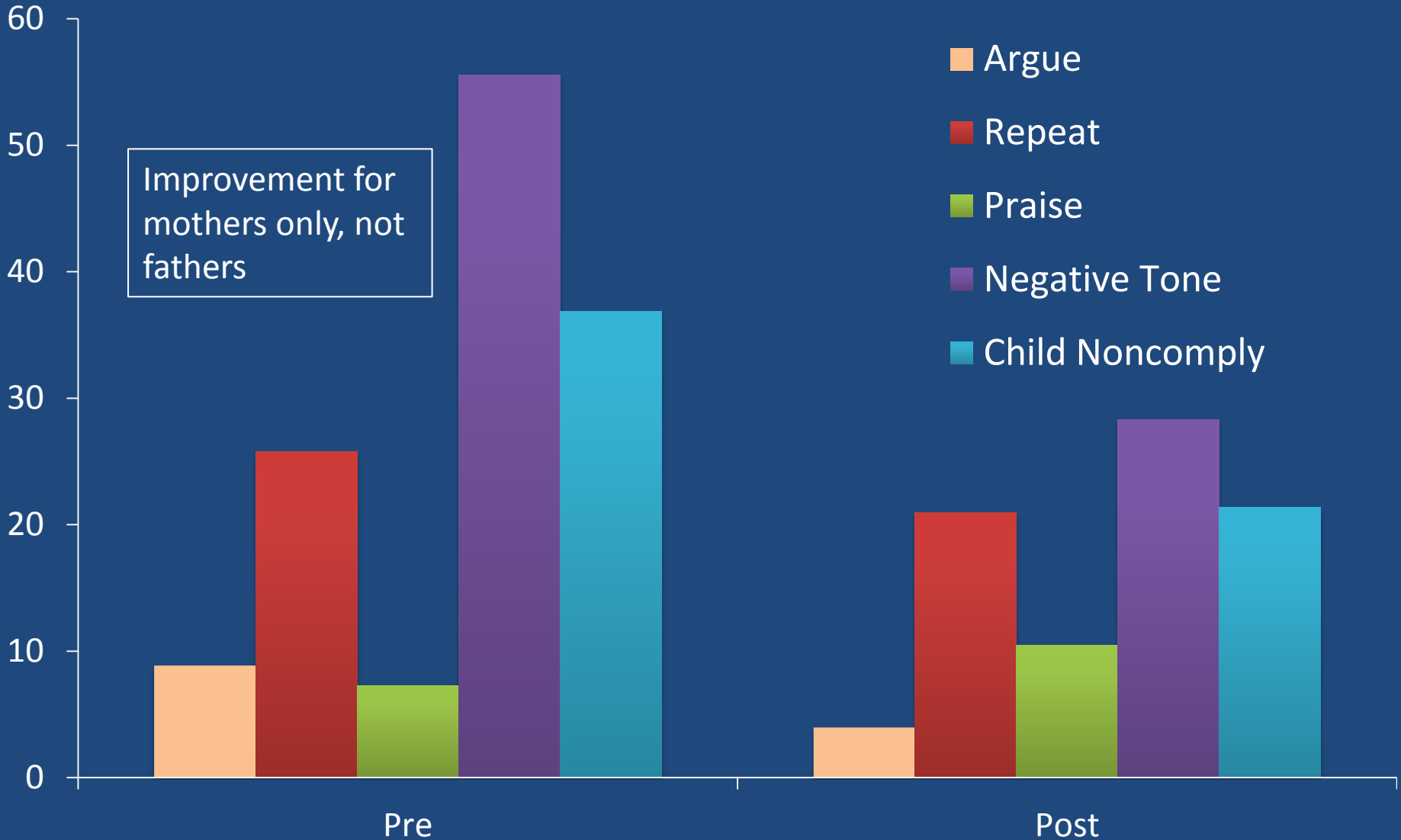


Recreational setting time out behaviors include IA, IDP, NC. Classroom is NC only.

# Danforth et al., 2006

- Used the Behavior Management Flowchart to train parents to use time out
  - Used a forward chaining approach
    - Taught effective commands
    - Praise for compliance
    - Time out
      - 1 min/year of age with 1-2 min of calm before release
      - Select practical locations in the home/community
      - Back-up consequences for time out noncompliance

# Results home audiotapes





# Northup et al., 1999

- Time out was compared to reprimands, no interaction, and being alone
  - Crossed with methylphenidate and placebo
- For 3/4 children, time out reduced almost all disruptive behavior
  - This was when the child took medication or placebo
- Results are notable as they occurred when children were tasked with seatwork

# Time out as part of an ADHD Treatment Package

- Summer Treatment Program (Chronis et al., 2004; Pelham, Greiner, & Gnagy, 1998; Pelham et al., 2001; Pelham et al., 2005)
- MTA Cooperative Group (1999)
- Kolko, Bukstein, & Barron (1998)

# Time Out as a Component of Behavioral Parent Training

- Incredible Years (Webster-Stratton, 1997)
- Parent-Child Interaction Therapy (Eyberg et al.; [pcit.org](http://pcit.org))
- Helping the Noncompliant Child (Forehand & Long, 2002; Forehand & McMahon, )
- Parent Management Training (Patterson, 1976)
- Community Parent Education Program (Cunningham et al., 1998)
- Defiant Children (Barkley, 1997)
- Triple-P Positive Parenting Program (Sanders et al.)
- Parent Management Training (Kazdin, 2005)

# Incredible Years

- Includes procedures for first changing the overall environment
  - Play
  - Praise/Tangible Rewards
  - Clear Commands
- Targets for time out (select 1-2)
  - Behaviors that cannot be ignored: hitting, noncompliance, destruction
- Use of if-then warning
  - “If you do not put those toys away, then you will go to time out”

# Incredible Years (cont.)

- Location: Dull, boring room
  - Discusses time out chair, hallway, bedroom
- One minute for age up to 5 minutes
  - two minutes of quiet time to end time out
- Use a timer
- Parents may also remove back-up privileges
- Parents are coached to not give attention to the child during time out

# Parent-Child Interaction Therapy

- Includes procedures for first changing the overall environment
  - Play
  - Labeled Praise
  - Clear Commands
- Targets for time out
  - Disobedience/Noncompliance

# Parent-Child Interaction Therapy (cont.)

- Uses a warning: “If you don't \_\_\_\_\_, then you will have to go sit on the chair.”
- Uses a time out chair; also discusses time out room if needed
- Time out is 3 minutes, plus 5 seconds of quiet to be released.
- Parent must keep track of time: After 5 seconds of silence ask "You are sitting quietly in the chair. Are you ready to come back and [original command]?"
- Advice to parents includes ignoring child complaints and use a time out room if the child does not comply with the time out chair.

# Helping the Noncompliant Child

- Includes procedures for first changing the overall environment
  - Reducing number of directions
  - Issue clear commands
  - Reward compliance
- Targets for time out
  - Noncompliance
  - Behaviors that can't be ignored (aggression, talking back, bad language)
- Provides a warning: "If you do not \_\_\_\_\_, you will have to take a time out."



# Helping the Noncompliant Child (cont.)

- Location for time out is away from reinforcers
  - Good: hallway, parent's bedroom, kitchen corner
  - Bad: child's bedroom
  - Not options: bathroom, closet, dark room
  - Isolation, place should be away from people and activities
- Rules for time out: Do not start until child is seated.
- Recommends short time duration (3 minutes)

# Helping the Noncompliant Child (cont.)

- Use an egg timer
- Time can be increased if the child does not comply with time out (re-set timer if child is noncompliant with time out). Parents may also remove back-up privileges
- Instructions for parents are to ignore behavior and stay calm

# Parent Management Training

- Pinpoint and count problem behavior
  - Use for high rate behavior for children 2-12, other consequences for older children
- Provide a warning
- Location: “very dull place, non-reinforcing” (e.g., bathroom)
  - states putting a chair in the hallway or corner does not work because people are in these area and people are naturally reinforcing

# Parent Management Training (cont.)

- Use timer
- Duration: 3-5 minutes
- Refusal to comply with time out equals more time (up to 30 minutes) or privilege loss
- Parents are instructed to ignore negative behavior

# Community Parent Education Program

- Uses a coping/modeling/problem-solving approach; less prescriptive
- Identify target behaviors
- Consider advantages/disadvantages of different locations
- Consider duration and contingent release times
- Consider privilege removal approaches

# Defiant Children

- Includes procedures for first changing the overall environment
  - Praise/Rewards for compliance
  - Issue clear commands
- Targets for time out
  - Defiance
  - Aggression
  - Destruction
  - Severe Tantrumming
- Provide a warning

# Defiant Children (cont.)

- Location: Time out chair/bedroom
- Must be quiet for time out to start/finish (30 sec.)
- One-two minutes of time out per year of child's age
- Add 1-2 minutes for instances of misbehavior
- Use a timer
- Parents are instructed to ignore misbehavior and avoid repeated warnings.

# Commonalities

- Relatively short durations
- Warnings before time out
- Contingent release
- Repeat initial instruction that resulted in time out
- Use a timer
- Parents must remove attention during time out
- Video #3 on CD . . .



# How to Teach Parents to Use Time Out

- Many parents will tell a clinician “Time out does not work.”
  - First step is to find out exactly what parent means by “Time out”
  - It is useful to find out what has worked in the past and what has not worked.

# Outline of Baseline Questions

- House Rules
  - Are these established, posted, and consistent?
  - Which are good candidates for time out?
- What does the child like to do?
- What does the child not like to do?
- How does the parent typically respond to rule violations?
- Has the parent used time out? How does it work?

# Establishing Time Out

- Behaviors that result in time out
- Rules for time out
- Time out Location
- Time out duration
- Consequences for breaking time out rules
- Release contingencies
- Ending time out

# Creating a Time out Plan

- Decide who is in charge of implementing time out
- Make sure all required materials are available
  - Timer
  - Chair
- Explain time out procedures to the child
  - Role play
  - Review rules, location, duration

# Implementing Time out

- Use time out consistently
  - Note inconsistencies and plan ahead for the future
  - Stick to the plan
  - Make changes ahead of time rather than reactively
- Be sure to make other times rewarding/encouraging for the child!

# Evaluating Time out

- Base evaluations of effectiveness on **data**
  - Compare to baseline
  - Use multiple measures
    - Frequency of time out behaviors
    - Time in time out
    - Occurrence of incompatible behaviors
- Behavior may get worse before it gets better
- Improvement usually occurs in small steps and long-term behavior change is slow.

# Revising Time Out

- Make revisions based on data/observations
- Give time out enough time to work before revising
- Review revisions with other parents, teachers, and the child
- Keep track of revisions on the data tracking sheet to facilitate progress monitoring

A video to show all the steps. . .



# Case Study 1

- LaRon is a 6-year old boy. His parents use time out following repeated noncompliance. They assign a 6-minute time out (1 minute for each year of age). However, they find he frequently leaves his time out area and yells at his parents when in time out because he wants it to be over. The parents have started to think “Time out does not work.”
- What advice do you have for this family?

# Trouble-Shooting Time out

# Time out does not reduce negative behaviors

- Function of the behavior
- Are data being collected?
- Is the behavior well-defined?
- Is the time out plan understood by the child?
- Is the program being implemented consistently
- Trouble-shoot parameters

# Child refuses to go to time out

- Don't start time out until the child is in the area
- Is the area well-defined
- Back-up consequences
- Location-free time outs

# Child misbehaves in time out

- What are the rules for time out?
- Is there a consequence for misbehavior?
- Secondary gains?
  - Attention
  - Self-stimulation
  - Avoidance/escape
  - Ability deficit

# Child does not accept the ending of time out

- Re-issue time out
- Cool down period
- Planned ignoring
- What is time in like?

# Child refuses to comply with initial request after time out

- Re-issue time out
- Consider the initial request
  - Poor command
  - Alternative explanation for behavior besides noncompliance?

# Child says he/she likes time out or seems to enjoy time out

- Think about whether these words are true!
- Is the location appropriate?
- What is the time in activity?
- How do adults respond to this comment?



- For additional training, please contact  
Dr. Gregory Fabiano [-fabiano@buffalo.edu](mailto:fabiano@buffalo.edu)

OR

The Center for Children and Families in Miami, FL  
- <http://casgroup.fiu.edu/ccf/>

For more information, please go to the main website and browse for workshops on this topic or check out our additional resources.

## Additional Resources

### Online resources:

1. Center for Children and Families website: <http://ccf.fiu.edu>
2. Society of Clinical Child and Adolescent Psychology website: <http://effectivechildtherapy.com>

### Peer-reviewed Journal Articles:

1. Brantner, J.P. & Doherty, M.A. (1983). A review of timeout: A conceptual and methodological analysis. *The Effects of Punishment on Human Behavior*. In S. Axelrod & J. Apasche (Eds). (pp. 87-132). New York: Academic Press.
2. Danforth, J.S., Harvey, E., Ulaszek, W.R., & McKee, T.E. (2006). The outcome of group parent training for families of children with attention-deficit/hyperactivity disorder and defiant/aggressive behavior. *Journal of Behavior Therapy and Experimental Psychiatry*, 37, 188-205.
3. Fabiano, G.A., Pelham, W.E., Manos, M., Gnagy, E.M., Chronis, A.M., Onyango, A.N., Williams, A., Burrows-MacLean, L, Coles, E.K., Meichenbaum, D.L., Caserta, D.A., & Swain, S. (2004). An evaluation of three time out procedures for children with attention-deficit/hyperactivity disorder. *Behavior Therapy*, 35, 449-469.
4. Harris, K.R. (1985). Definitional, parametric, and procedural considerations in time out interventions and research. *Exceptional Children*, 51, 279-288.
5. Hobbs, S.A. & Forehand, R. (1977) Important parameters in the use of timeout with children: A re-examination. *Journal of Behavior Therapy and Experimental Psychiatry*, 8, 365-370.
6. MacDonough, T.S. & Forehand, R. (1973). Response contingent time out: Important parameters in behavior modification with children. *Journal of Behavior Therapy and Experimental Psychiatry*, 4, 231-236.
7. Northrup, J., Fusilier, I., Swanson, V., Huete, J., Bruce, T., Freland, J., Gulley, V., & Edwards, S. (1999). Further analysis of the separate and interactive effects of methylphenidate and common classroom contingencies. *Journal of Applied Behavior Analysis*, 32, 35-50.

