

Functional Behavioral Assessment and Intervention for Young Children with ADHD

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Project ACHIEVE

- Children 3-5 years in age who have or are at-risk for ADHD
- Multi-setting Intervention Group
 - Parent education
 - Literacy and numeracy activities for home and school
 - Functional behavioral assessment (FBA) and intervention plan in home and school
 - 1 year of monthly consultation in the home and school
 - 1 year follow-up consultation (either monthly or every 6 months)

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Case Example: Eddie

- Services began at 3 years of age
- Currently attends preschool 5 days/week
- Services received:
 - Year 1:
 - Parents Attended 15/20 parent education sessions
 - FBA and intervention plan in both home and school
 - Monthly consultation in both home and school
 - Literacy and numeracy activities in both home and school
 - Year 2: (current year)
 - Consultation every 6 months

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Positive Behavior Support (PBS)

- An approach to dealing with challenging behaviors that emphasizes prevention, environmental modification, and instruction of appropriate alternative behavior
- Methods that would be helpful in altering undesirable behavior patterns; respectful of a person's dignity; successful in promoting quality of a person's lifestyle
(Koegel, Koegel, & Dunlap, 1996)

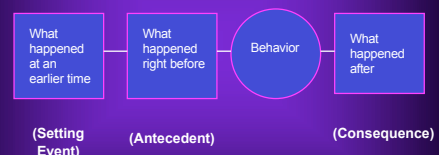
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Functional Assessment-Underlying Assumptions

1. Challenging behavior serves a function for the child
2. Challenging behaviors are context related
3. Effective interventions are based on a thorough understanding of the child and his or her problem behavior

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Understanding Challenging Behavior



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Why do challenging behaviors occur?

- 1) To get something
 - Attention
 - Preferred Activity or Item
 - Sensory Reinforcement
- 2) To escape or avoid something
 - Tasks/Demands
 - Person

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Steps in the Functional Behavioral Assessment Process

1. Conduct functional behavioral assessment
2. Develop hypotheses
3. Assess the accuracy of the hypotheses (optional)
4. Design an intervention/support plan
5. Collect data on effectiveness of intervention/support plan
6. Alter the intervention if ineffective
7. Evaluate the long-term effectiveness of the plan and fade intrusive interventions

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1. Conduct Functional Behavioral Assessment

Purpose: To identify activities and events associated with occurrences and non-occurrences of the problem behavior

Methods of Assessment:

1. Interview
 - Problem Identification Interview (Kratochwill & Bergen, 1990)
 - Functional Assessment Interview (O'Neill et al., 1997)
2. Direct Observation (Consultants, Teachers, and Teachers and Parents/Guardians)
 - Activity Analyses/Schedule Analyses
 - Charts
 - Checklists
3. Functional Analysis

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Case Example: Interview

- Problem Behavior:
 - Off- task (e.g. rolling on the floor, walking away from activity, and playing with objects)
 - Disruptive (e.g. talking to student next to him and calling out)
- Antecedents:
 - Requiring him to sit during circle time
 - Another student engaging in an activity or behavior that Eddie does not like or approve of
- Consequences:
 - Teacher speaks to Eddie about his behavior
 - Teacher tries to ignore his behavior
 - Teacher pulls Eddie aside and sits him in a chair

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Case Example: Interview

- How severe are Eddie's challenging behaviors for you? 7 to 8
- How often does he engage in challenging behaviors per day and how long does each episode last? 5 to 7 per day lasting several minutes
- Goal identified by teacher:
 - Reducing Eddie's off-task and disruptive behaviors during circle time.
- Client Assets and Preferences:

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Case Example: Consultant Direct Observation Summary

- Antecedent:
 - Teacher addressing another student during circle time
 - Another student singing the ABC's with Eddie when he was to do it alone
- Behavior:
 - Fidgety
 - Off-task (e.g., eyes not on teacher or task)
 - Disruptive (e.g. yelling at other student and pulling another student's shoe laces)
- Consequence:
 - Teacher addressed questions to Eddie
 - Seating Eddie in a chair next to her
 - Redirecting Eddie

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Video

Eddie Before Intervention
with Project Achieve

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2. Develop Hypotheses

Purpose: To formulate statements about why behavior occurs based on assessment information

Strategies:

1. Review assessment information
2. Look for patterns of behavior
3. Develop hypothesis statements about why behavior is occurring and identify variables that can be manipulated to formulate an intervention

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Things to Remember

- Let the data drive your hypothesis development
- Individuals may engage in problem behavior for a variety of reasons
- A single problem behavior may serve more than one function
- If you cannot find patterns in the data, collect more

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Case Example: Hypotheses

- **Hypothesis 1:** When Eddie is participating in large group activities (e.g. circle time) and activities are presented that require sitting and listening, he will engage in off-task behaviors (e.g. rolling on the carpet and playing with objects) in order to escape the tasks that require sitting and listening.
- **Hypothesis 2:** When Eddie is participating in large group activities (e.g. circle time) and activities are presented that require sitting and listening, he will engage in disruptive behaviors (e.g. talking to student next to him and touching another student) to gain attention from his teacher and peers.

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3. Assess the Accuracy of the Hypotheses

Purpose: To evaluate whether hypotheses are accurate prior to formulating an intervention

Strategies: Brief reversals

Considerations:

1. Will behavior cause injury to student or others?
2. Will behavior be disruptive to class?
3. Is testing feasible (staff and time)?

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Contributions of Functional Assessment to Support Plans

1. Antecedent information can be used to develop preventive interventions to reduce the likelihood of problem behaviors
2. Information about skill deficits and replacement behavior
3. Strategies for responding to problem behavior that are least likely to reinforce it

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4. Design an Intervention/Support Plan

Purpose: To formulate an intervention that is multicomponent and directly linked to the hypotheses

Categories of Intervention

1. Preventive
2. Instructive
3. Consequence-Based

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Preventive Interventions

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Preventive Interventions for Attention Maintained Behavior

1. Offer less difficult or preferred activities when attention is not available
2. Use scheduled or noncontingent attention
3. Utilize other adults or peers in environment to provide attention

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Preventive Interventions for Access Maintained Behavior

1. Offer alternative activity
2. Offer a choice of an alternative activity
3. Increase Predictability
 - Picture schedule
 - Make activity length clear
 - Provide transitional warning about activity termination
 - Schedule access with a timer, calendar, schedule
 - When-then statements

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Preventive Interventions for Escape Maintained Behavior

1. Modify task difficulty/length
2. Change instructional media
3. Incorporate areas of child interest (e.g., Clean up game)
4. Assure tasks have functional outcomes
5. Offer opportunities for choice making
6. Use task interspersal
7. Use hi-p sequence
8. Make length of task clear
9. Modify pace of instruction
10. Manipulate task size
11. Provide periodic breaks
12. Pre-practice

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Instructive Interventions

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First Step When Teaching Alternative Skills

Determine whether:

1. Skill deficit exists
 - individual does not have necessary skills
2. Performance deficit exists
 - cannot emit desired behavior when needed
 - ***problem behavior is more effective or efficient than desired behaviors

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Categories of Alternative Skills

1. 1:1 Replacement skills
2. General skills
3. Self-management skills
3. Coping and tolerance skills

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Consequence Strategies

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Consequence-Based Interventions

1. Specific praise
2. Pivot praise
3. Planned ignoring with immediate praise for appropriate behavior
4. Prompting compliance with follow through
5. Problem Solving
6. Time Away
7. Time Out
8. Natural Consequences
9. Token Reinforcement Systems

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Case Example: Interventions Based on Hypotheses

Preventive:

- Use of assigned seat
- Embed Eddie's interests into circle time activities
- Provide Eddie with hands on activities related to large group activities

Instructive:

- Break card

Consequence-Based:

- Specific praise
- Pivot praise

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5. Collect Data on Effectiveness of Intervention/Support Plan

Purpose: To assure plan effectively reduces problem behavior and increases desirable behavior

Strategies:

1. Direct observation (parent, teacher, consultant)
2. Ratings (parent and teacher)
3. Review permanent products
4. Natural documents

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Teacher Perceptions of Problem Behavior (9 months post intervention)

- How severe are Eddie's challenging behaviors for you? 1 or 2
- How often does he engage in challenging behaviors per day and how long does each episode last?
Approximately 3 times/week lasting 1-2 minutes
- Goal identified by teacher:
–Reducing Eddie's off-task and disruptive behaviors during circle time. **(GOAL ACHIEVED)**

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Case Example: Teacher Perceptions of Intervention Effectiveness

How often were the interventions effective?
0-25% , 26-50%, 51-75%, or 76-100% of the time

- Assigned seat during structured time 76-100%
- Embedding interest into circle time activities 51-75%
- Hands-on activities during circle time 76-100%
- Specific praise 76-100%
- Pivot praise 76-100%
- Break Card (for appropriate escape) 0-25%
- "Do you want a break" prompt 76-100%

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Case Example: Teacher Report Form (Achenbach, 2001)

	Baseline 3 yrs-3 mos	6 months 3 yrs-10 mos
Affective Problems	50 (<50%)	50 (<50%)
Anxiety Problems	85B (93%)	56 (73%)
Somatic Problems	50 (<50%)	50 (<50%)
ADHD Problems	83B (97%)	54 (65%)
ODD Problems	83B (97%)	58 (79%)
Conduct Problems	57 (76%)	57 (76%)
Internalizing Problems	81B (84%)	53 (62%)
Externalizing Problems	66C (95%)	58 (79%)
Total Problems	65C (93%)	54 (65%)

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Case Example: Connors' Teacher Rating Scale-R:L (Connors, 1997)

	Baseline 3 yrs-3 mos	6 months 3 yrs-10 mos
Oppositional	84 (88%)	50 (72%)
Cognitive/Inattention	57 (59%)	50 (78%)
Hyperactivity	75 (78%)	54 (78%)
Anxious-Shy	70 (77%)	62 (89%)
Perfectionism	80 (84%)	73 (87%)
Social Problems	70 (73%)	65 (94%)
ADHD Index	68 (71%)	51 (69%)
G. I. Restless-Impulsive	73 (77%)	48 (61%)
G. I. Emotional Lability	68 (71%)	55 (82%)
Global Index Total	62 (65%)	51 (69%)
DSM-IV: Inattentive	70 (74%)	53 (76%)
DSM-IV: Hyperactive/Impulsive	68 (71%)	53 (77%)
DSM-IV: Total	70 (73%)	53 (78%)

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Case Example: ADHD-IV (DuPaul et al., 1998)

	Baseline 3 yrs-3 mos	6 months 3 yrs-10 mos
Inattentive	21 (90%)	7 (50%)
Hyperactive/Impulsive	22 (93%)	5 (50%)
Total	43 (93%)	12 (50%)

Baseline: 15/18 ADHD symptoms present
6 months: 0/18 ADHD symptoms present

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Video

Eddie after 9 months
with Project Achieve

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6. Alter the Intervention if Ineffective

Purpose: To develop alternative intervention to address limitations

Strategies:

1. Collect additional assessment information if necessary
2. Revise hypotheses

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7. Evaluate the Long-Term Effectiveness of Plan and Fade Intrusive Interventions

Purpose: To assure plan remains effective and allows student typical experiences

Strategies:

1. Collect ongoing data
2. Systematically introduce fading procedures

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Case Example: Teacher Report Form (Achenbach, 2001)

	B 3 yrs-3 mos	6 months 3 yrs-10 mos	1 year 4 yrs-6 mos	1.5 years 4 yrs-10 mos
Affective	50 (<50%)	50 (<50%)	54 (65%)	50 (<50%)
Anxiety	65 (63%)	56 (73%)	56 (73%)	56 (73%)
Somatic	50 (<50%)	50 (<50%)	50 (<50%)	50 (<50%)
ADHD	65 (63%)	54 (65%)	60 (84%)	55 (69%)
ODD	65 (63%)	58 (79%)	54 (65%)	54 (65%)
Conduct	57 (76%)	57 (76%)	57 (76%)	57 (76%)
Internalizing	60 (59%)	53 (62%)	55 (69%)	48 (42%)
Externalizing	66 (65%)	58 (79%)	58 (79%)	55 (69%)
Total	64 (63%)	54 (65%)	58 (79%)	53 (62%)

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Case Example: Connors' Teacher Rating Scale-R:L (Connors, 1997)

	B 3-3	6 months 3-10	1 year 4-6	1.5 years 4-10
Oppositional	83 (86%)	50 (72%)	50 (72%)	46 (65%)
Cognitive/Inattention	87 (85%)	50 (78%)	47 (63%)	47 (63%)
Hyperactivity	75 (86%)	54 (78%)	77 (96%)	68 (93%)
Anxious-Shy	78 (87%)	62 (89%)	56 (81%)	45 (48%)
Perfectionism	80 (89%)	77 (97%)	80 (96%)	45 (67%)
Social Problems	70 (88%)	65 (94%)	45 (61%)	54 (61%)
ADHD Index	68 (82%)	51 (69%)	73 (94%)	55 (82%)
G. I. Restless-Imp	73 (87%)	48 (61%)	71 (94%)	61 (86%)
G. I. Emot. Liability	66 (76%)	55 (82%)	76 (97%)	47 (63%)
Global Index Total	82 (99%)	51 (69%)	76 (97%)	57 (84%)
DSM-IV: Inattentive	70 (94%)	53 (76%)	55 (79%)	48 (62%)
DSM-IV: Hyp/Imp	68 (93%)	53 (77%)	80 (98%)	65 (91%)
DSM-IV: Total	70 (93%)	53 (78%)	69 (93%)	57 (81%)

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Case Example: ADHD-IV (DuPaul et al., 1998)

	B 3 yrs-3 mos	6 months 3 yrs-10 mos	1 year 4 yrs-6 mos	1.5 years 4 yrs-10 mos
Inattentive	21 (90%)	7 (50%)	13 (50-75%)	9 (50-75%)
Hyp/Imp	22 (99%)	5 (50%)	24 (95%)	16 (80%)
Total	43 (93%)	12 (50%)	37 (86%)	25 (50-75%)

Baseline: 15/18 ADHD symptoms present
 6 months: 0/18 ADHD symptoms present
 1 year: 11/18 ADHD symptoms present
 1.5 years: 8/18 ADHD symptoms present

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Considerations when Partnering with Teachers

- Start the process using a collaborative model
- Build rapport
- Acceptability of Assessment, Intervention, and Consultation Process
 - Clarity
 - Reasonable
 - Feasibility (ease of use, time required)
 - Disruptiveness
 - Fitting into family routine
 - Informative
 - Discomfort
- Environmental changes and contextual fit
- Individualizing the process for families
- Be flexible

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Case Example: Teacher Acceptability

1 2 3 4 5
 Not at all Acceptable Neutral Very Acceptable

1. How acceptable did you find the interventions? 5
2. How willing would you be to participate in the intervention process again? 5
3. Given the child's behavior difficulties, how reasonable did you find the intervention process to be? 4
4. How much discomfort did the child experience while participating in the intervention? 5
5. How much discomfort did you experience while participating in the intervention? 5

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Case Example: Teacher Acceptability

1 2 3 4 5
 Not at all Acceptable Neutral Very Acceptable

6. How feasible was this intervention? 5
7. How well did the assessment process identify important information about the child's behavior at school? 4
8. How disruptive was it for the classroom staff in general to carry out this intervention? 5
9. How well did carrying out this intervention fit into the classroom's routine? 5

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Closing Comments from Eddie's Teacher

- Effective approach for dealing with challenging behavior and would definitely engage in the process again
- Project did not need a label to provide service
- Project was proactive

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Questions

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