Prevalence of Severe Behavior

- 40% of children diagnosed with an autism spectrum disorder referred for community mental health treatment have challenging behavior symptoms (Mandell et al., 2005)
- Clinically significant challenging behavior is 2 to 3 times more likely in a developmentally disabled population (Einfeld & Tongue, 1996)
Clinical Importance of Treating Severe Behavior

- Significant problem behavior limits children’s participation in their social environment and limits skill development (Rojahn & Tasse, 1996; Tongue, 1999)
- Negative child behaviors lead to significant parent distress (Blacher, Lopez, Shapiro, & Fusco, 1997; Saloviita, Italinna, & Leinonen, 2003)
- to find out-of-home placement (Bromley & Blacher, 1991)

Why Parent Training?

- family functioning (Llewellyn et al., 1999)
- Parenting behaviors impact child behaviors
  - Challenging behavior learned through contingences in natural environment
  - Training adults in natural environment increases likelihood of behavior change (Maughan, Christiansen, Jenson, Olympia, & Clark, 2005)
Parent Training Research

- Skill acquisition
- Challenging behavior reduction
  - Child absent: Aman et al. (2009); Sofronoff & Farbotko (2002); Whittingham et al. (2009)
  - Child present: Harding et al. (2009); Moes & Frea (2002); Strauss et al. (2012)

Identifying the Problem

- “Crisis of the day”
- Consultative services targeted at immediate symptom reduction
- Unable to safely work with children with severe challenging behavior in some environments
  - more durable, function-based change in both parent and child behaviors
Program Development

• Theoretical Framework:
  – parents in function based treatments to address severe challenging behaviors

• Key Components:
  – Functional analysis/functional behavior assessment
  – Develop treatment package
  – Parent coaching
  – Data collection

Program Models

• 6 Month Standard Intervention
• 6 Month Intensive Intervention
  • Previously 12 Week Home-Based
• 2 Week Clinic-Based Intensive Intervention
6 Month Standard

| Month 1 | Month 2 | Month 3 | Month 4 | Month 5 | Month 6 |

6 Month Intensive

| Month 1 | Month 2 | Month 3 | Month 4 | Month 5 | Month 6 |

2 Weeks

| Week 1 | Week 2 |

6 Month Standard: Specific Considerations

<table>
<thead>
<tr>
<th>Environment</th>
<th>In the home or community</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staffing</td>
<td>1 clinician</td>
</tr>
<tr>
<td>Intensity</td>
<td>2 hours per session</td>
</tr>
<tr>
<td>Duration</td>
<td>14 Sessions over 6 months</td>
</tr>
<tr>
<td>Funding</td>
<td>Medicaid; Insurance; County Board of DD; School district</td>
</tr>
</tbody>
</table>
6 Month Standard Program

**Pre-Treatment**
- **Funding**
- Discuss Expectations/Goals
- Safety Training
- Measures

**Week 1**
- Baseline Data
- Direct Observations
- FBA
6 Month Standard Program

Pre-Treatment

Week 1

Weeks 2

Develop Behavior plan and review with family

Weeks 3, 4, & 5

Implement Behavior Plan
Parent Coaching
6 Month Standard Program

**Pre-Treatment**

- Week 1
- Week 2
- Week 3
- Week 4
- Week 5
- Week 6 to 8

**Parent's independently implementing the plan**

---

**6 Month Standard Program**

**Pre-Treatment**

- Week 1
- Week 3
- Weeks 3-5
- Week 6 to 8
- Weeks 9-16

**Problems solved**
- Continue implementation
- Address additional treatment goals
6 Month Standard Program

6 Month Standard Data Collection

- Indirect (Pre and Post)
  - Parenting Stress
  - Child Behavior
  - Parenting strategies
- Direct
  - Child: challenging behaviors, replacement behaviors
  - Parent: treatment fidelity
6 Month Intensive: Specific Considerations

<table>
<thead>
<tr>
<th>Environment</th>
<th>In the home or community</th>
</tr>
</thead>
<tbody>
<tr>
<td>Staffing</td>
<td>1 clinician</td>
</tr>
<tr>
<td>Intensity</td>
<td>2 hours per session</td>
</tr>
<tr>
<td>Duration</td>
<td>24 Sessions over 6 months</td>
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<tr>
<td>Funding</td>
<td>Medicaid; Insurance; County Board of DD; School district</td>
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6 Month Intensive Program

Pre-Treatment
- Funding
  - Discuss Expectations/Goals
  - Safety Training
  - Measures
6 Month Intensive Program

Pre-Treatment

Week 1

Baseline Data
Direct Observations
FBA

6 Month Intensive Program

Pre-Treatment

Day 1

Weeks 2

Develop Behavior plan and review with family
6 Month Intensive Program

Pre-Treatment

Week 1

Weeks 3, 4, & 5

Implement Behavior Plan
Parent Coaching

6 Month Intensive Program

Pre-Treatment

Week 1

Weeks 3, 4, & 5

Week 6 - 8

Parent’s independently implementing the plan
6 Month Intensive Program

Pre-Treatment

Weeks 1-3

Weeks 3-5

Weeks 5-8

Weeks 9-16

Problems solved
Continue implementation
Address additional treatment goals

Generalization and fade out
Plan for discharge
Coordinate Follow up services with Psychologist

6 Month Intensive Program

Pre-Treatment

Weeks 1-3

Weeks 3-5

Weeks 5-8

Weeks 9-16

Generalization and fade out
Plan for discharge
Coordinate Follow up services with Psychologist
Changes: 12 Week to 6 Month Intensive
Change occurred after feedback from families
• Parents reported that 5 days a week was a huge commitment
• Parents did not find it to be needed

6 Month Intensive Data Collection
• Indirect (Pre and Post)
  – Parenting Stress
  – Child Behavior
  – Parenting strategies
• Direct
  – Child: challenging behaviors, replacement behaviors
  – Parent: treatment fidelity
### 2 Week: Specific Considerations

<table>
<thead>
<tr>
<th>Environment</th>
<th>Treatment room with 1-way observation mirror</th>
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<tbody>
<tr>
<td>Staffing</td>
<td>3-5 clinicians; supervised by Licensed Psychologist, BCBA-D</td>
</tr>
<tr>
<td>Intensity</td>
<td>3 hours/day</td>
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<tr>
<td>Duration</td>
<td>10 days</td>
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<tr>
<td>Funding</td>
<td>Medicaid; Insurance; County Board of DD; School district</td>
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</table>

### 2-week Program

- **Pre-Treatment:**
  - Funding
  - Discuss Expectations/Goals
  - Safety Training
  - Measures
  - Direct Observations
2-week Program

Pre-Treatment
Day 1
Training
Role Play

FA
Baseline Data Collection

Days 2 & 3
2-week Program

Pre-Treatment
Day 1

Days 2 & 3

Days 4 & 5
Implement Behavior Plan
Parent Coaching

Days 6 & 7
Incorporate Additional Treatment Goals
2-week Program

- Pre-Treatment
- Days 1
- Days 2 & 3
- Days 4 & 5
- Days 6, 7, 8, 9, & 10

Generalization to Community/Home

2-week Program

- Follow-up

Determine next-steps
Data Collection

• Indirect (Pre and Post)
  – Parenting Stress
  – Child Behavior
  – Parenting strategies

• Direct
  – Child: challenging behaviors, replacement behaviors
  – Parent: treatment fidelity

OUTCOMES
6 month intensive: Case Illustrations

• Three Cases
  – Client demographics
  – Functional Behavior Assessment
  – Behavior Plan
  – Outcomes
  – Follow-up Plan
  – Lessons learned

---

### Jack

<table>
<thead>
<tr>
<th>Age</th>
<th>10 years</th>
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<tbody>
<tr>
<td>Diagnosis</td>
<td>Bipolar, ADHD, Disruptive Behavior Disorder NOS, Neurofibromatosis</td>
</tr>
<tr>
<td>Family</td>
<td>Mother and three younger siblings</td>
</tr>
<tr>
<td>Referral</td>
<td>Aggression, Negative Vocalization, Disruptive Behavior</td>
</tr>
<tr>
<td>Clinicians</td>
<td>Case Supervisor; Psychologist, BCBA-D</td>
</tr>
</tbody>
</table>
Jack

- Phase 1: FBA
  - Parent interview
  - QABF
  - Direct Observations
- Phase 2: Introduce Behavior Plan
- Phase 3: School Staff Coaching in Behavior Plan
- Phase 4: Fade Services

Jack- Baseline

![Graph showing negative vocalizations and aggression over sessions](image)
Jack

- Phase 1: FBA
  - Parent interview
  - QABF
  - Direct Observations
- Phase 2: Introduce Behavior Plan/School Staff Coaching in Behavior Plan
- Phase 3: Parent Coaching in Behavior Plan
- Phase 4: Fade Services

Jack - Treatment

[Graph showing Negative Vocalizations and Aggression]
Trevor

<table>
<thead>
<tr>
<th>Age</th>
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<tbody>
<tr>
<td>Diagnosis</td>
<td>ASD, ADHD</td>
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<tr>
<td>Family</td>
<td>Both parents and younger sibling</td>
</tr>
<tr>
<td>Referral</td>
<td>Disruptive Behavior, Aggression, Yelling</td>
</tr>
<tr>
<td>Clinicians</td>
<td>Lead Case Supervisor; Psychologist, BCBA-D</td>
</tr>
</tbody>
</table>

Trevor

- Phase 1: FBA
  - Parent interview
  - QABF
  - Direct Observations
- Phase 2: Introduce Behavior Plan
- Phase 3: School Staff Coaching in Behavior Plan
- Phase 4: Fade Services
Annie

<table>
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<tr>
<th>Age</th>
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<tbody>
<tr>
<td>Diagnosis</td>
<td>ASD, Scoliosis, Stereotypic Movement Disorder with SIB</td>
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<tr>
<td>Family</td>
<td>Both parents and younger sibling</td>
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<tr>
<td>Referral</td>
<td>SIB, Disrobing</td>
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<tr>
<td>Clinicians</td>
<td>Lead Case Supervisor; Psychologist, BCBA-D</td>
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</table>
Annie

- Phase 1: FBA
  - Parent interview
  - QABF
  - Direct Observations
- Phase 2: Introduce Behavior Plan
- Phase 3: School Staff Coaching in Behavior Plan
- Phase 4: Fade Services

Annie- Baseline

SIB
Annie

- Phase 1: FBA
  - Parent interview
  - QABF
  - Direct Observations
- Phase 2: Introduce Behavior Plan/School Staff Coaching in Behavior Plan
- Phase 3: Parent Coaching in Behavior Plan
- Phase 4: Fade Services

Annie- Treatment
6 month intensive: Case Illustrations

• Three Cases
  – Client demographics
  – Functional Behavior Assessment
  – Behavior Plan
  – Outcomes
  – Follow-up Plan
  – Lessons learned

Anthony

<table>
<thead>
<tr>
<th>Age</th>
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<tbody>
<tr>
<td>Diagnosis</td>
<td>Autism, moderate MR, ADHD</td>
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<tr>
<td>Family</td>
<td>School setting</td>
</tr>
<tr>
<td>Referral</td>
<td>Disruptive behaviors, aggressions</td>
</tr>
<tr>
<td>Clinicians</td>
<td>Lead Case Supervisor; Supporting clinician; Psychologist, BCBA-D</td>
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</table>
Anthony

- Phase 1: FBA
  - Parent interview
  - QABF
  - Direct Observations
- Phase 2: Introduce Behavior Plan
- Phase 3: School Staff Coaching in Behavior Plan
- Phase 4: Fade Services
Anthony

- Phase 1: FBA
  - Parent interview
  - QABF
  - Direct Observations
- Phase 2: Introduce Behavior Plan/School Staff Coaching in Behavior Plan
- Phase 3: Parent Coaching in Behavior Plan
- Phase 4: Fade Services

Anthony - Challenging Behaviors
Abby

- Age: 5 years
- Diagnosis: Autism, mild MR, and ADHD-combined type
- Family: Aunt (custodial guardian)
- Referral: Disruptive behaviors, negative vocalizations, aggression, and SIB
- Clinicians: Lead Case Supervisor; Psychologist, BCBA-D

Abby

- Phase 1: FBA
  - Parent interview
  - QABF
  - Direct Observations
- Phase 2: Introduce Behavior Plan
- Phase 3: Parent Coaching in Behavior Plan
- Phase 4: Fade Services
Abby – Challenging Behaviors

Abby

• Phase 1: FBA
  • Parent interview
  • QABF
  • Direct Observations
• Phase 2: Introduce Behavior Plan
• Phase 3: Parent Coaching in Behavior Plan
• Phase 4: Fade Services
Abby

- Phase 1: FBA
  - Parent interview
  - QABF
  - Direct Observations
- Phase 2: Introduce Behavior Plan
- Phase 3: Parent Coaching in Behavior Plan
- Phase 4: Fade Services

Abby – Challenging Behaviors
## Jordan

<table>
<thead>
<tr>
<th>Age</th>
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<tbody>
<tr>
<td>Diagnosis</td>
<td>Autism, Stereotypic Movement Disorder with Self-Injurious Behavior, and ADHD</td>
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<tr>
<td>Family</td>
<td>2 parents married; Grandma; high SES</td>
</tr>
<tr>
<td>Referral</td>
<td>Aggression and SIB</td>
</tr>
<tr>
<td>Clinicians</td>
<td>Lead Case Supervisor; Psychologist, BCBA-D</td>
</tr>
</tbody>
</table>

- **Phase 1: FBA**
  - Parent interview
  - QABF
  - Direct Observations
- **Phase 2: Introduce Behavior Plan**
- **Phase 3: Parent Coaching in Behavior Plan**
- **Phase 4: Fade Services**
Jordan- Challenging Behaviors

- Phase 1: FBA
  - Parent interview
  - QABF
  - Direct Observations
- Phase 2: Introduce Behavior Plan
- Phase 3: Parent Coaching in Behavior Plan
- Phase 4: Fade Services
Jordan- Challenging Behaviors

- Phase 1: FBA
  - Parent interview
  - QABF
  - Direct Observations
- Phase 2: Introduce Behavior Plan
- Phase 3: Parent Coaching in Behavior Plan
- Phase 4: Fade Services
Jordan- Challenging Behaviors

2 Week: Case Illustrations

• Three Cases
  – Client demographics
  – Functional Behavior Assessment
  – Behavior Plan
  – Outcomes
  – Follow-up Plan
  – Lessons learned
Jerry

<table>
<thead>
<tr>
<th>Age</th>
<th>15 years</th>
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</thead>
<tbody>
<tr>
<td>Diagnosis</td>
<td>Autism and Down Syndrome</td>
</tr>
<tr>
<td>Family</td>
<td>2 parents married; 2 siblings (ages 14 and 17); high SES</td>
</tr>
<tr>
<td>Referral</td>
<td>Aggressions; Property Destruction; Elopement; Non-compliance</td>
</tr>
<tr>
<td>Clinicians</td>
<td>Lead Case Supervisor; Supporting clinicians (4/day); Psychologist, BCBA-D</td>
</tr>
</tbody>
</table>

Jerry

- Phase 1: FBA
  - Parent/Teacher interviews
  - Direct Observations
  - Brief FA
- Phase 2: Implement Behavior Plan at Clinic
- Phase 3: Implement Behavior Plan at Home
Jerry

- Phase 1: FBA
  - Parent/Teacher interviews
  - Direct Observations
  - Brief FA
- Phase 2: Implement Behavior Plan at Clinic
- Phase 3: Implement Behavior Plan at Home

Jerry - Treatment at Clinic

![Graph showing behavior changes over sessions](image-url)
“Jerry - Treatment at Clinic

Jerry - Treatment at Clinic
Jerry- Treatment at Clinic

“Jerry- Treatment at Clinic
Jerry

- Phase 1: FBA
  - Parent/Teacher interviews
  - Direct Observations
  - Brief FA
- Phase 2: Implement Behavior Plan at Clinic
- Phase 3: Implement Behavior Plan at Home

"Jerry- Treatment at Home"
Jerry- Treatment at Home

Jerry

- Parent Meeting/Debrief
  - Discussed concerns
  - Reviewed progress
  - Treatment options

- Follow-up services
  1. School consultation
  2. Modify home behavior plan
  3. Explore funding options
Jerry- Challenging Behavior Episodes

Jerry

• Summary
  – Increase in compliance and decrease in challenging behaviors at clinic
  – Needed more time to generalize results to home
  – School participation/collaboration

• Lessons Learned
  – Parents’ expectations
  – Time constraints
  – Funding constraints
C.J.

<table>
<thead>
<tr>
<th>Age</th>
<th>12 years</th>
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</thead>
<tbody>
<tr>
<td>Diagnosis</td>
<td>Autism</td>
</tr>
<tr>
<td>Family</td>
<td>Parents divorced, father lives out of state, older siblings</td>
</tr>
<tr>
<td>Referral</td>
<td>Aggressions; Self Injurious Behavior; Property Destruction; Elopement; Non-compliance</td>
</tr>
<tr>
<td>Clinicians</td>
<td>Lead Case Supervisor; Supporting clinicians (4/day); Psychologist, BCBA-D</td>
</tr>
</tbody>
</table>

C.J.

- Phase 1: FBA
  - Parent/Teacher Interviews
  - Direct Observations
  - FA
- Phase 2: Implement Behavior Plan at Clinic
- Phase 3: Implement Behavior Plan at Home
C.J.

- Phase 1: FBA
  - Parent/Teacher interviews
  - Direct Observations
  - FA
- Phase 2: Implement Behavior Plan at Clinic
- Phase 3: Implement Behavior Plan at Home
- Phase 4: Follow Up

C.J.- Treatment at Clinic
C.J.- Treatment at Clinic

- Phase 1: FBA
  - Parent/Teacher interviews
  - Direct Observations
  - FA
- Phase 2: Implement Behavior Plan at Clinic
- Phase 3: Implement Behavior Plan at Home
- Phase 4: Follow Up
C.J.- Treatment at Home

“C.J.- Treatment at Home
C.J.

• Phase 1: FBA
  – Parent/Teacher interviews
  – Direct Observations
  – FA
• Phase 2: Implement Behavior Plan at Clinic
• Phase 3: Implement Behavior Plan at Home
• Phase 4: Follow Up

C.J.

• Follow-Up Treatment
  – School consultation
  – Weekly home visits
  – Training siblings and in home providers
Follow Up Treatment

• Summary
  – Increase in compliance and decrease in challenging behaviors at clinic and home

• Lessons Learned
  – Environmental Barriers
  – Collaborating with Funding Sources

C.J.
Zach

<table>
<thead>
<tr>
<th>Age</th>
<th>16 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diagnosis</td>
<td>Autism</td>
</tr>
<tr>
<td>Family</td>
<td>Parents married, one sibling</td>
</tr>
<tr>
<td>Referral</td>
<td>Socially Offensive Behavior, Aggressions, Disruptive Behavior</td>
</tr>
<tr>
<td>Clinicians</td>
<td>Lead Case Supervisor; Supporting clinicians (4/day); Psychologist, BCBA-D</td>
</tr>
</tbody>
</table>

• Phase 1: FBA
  – Parent/Teacher interviews
  – Direct Observations
  – FA

• Phase 2: Implement Behavior Plan at Clinic
Zach

- Phase 1: FBA
  - Parent/Teacher interviews
  - Direct Observations
  - FA
- Phase 2: Implement Behavior Plan at Clinic

Zach - Inappropriate Touching
“Zach”

Summary
Clear results from the FA
Decrease in challenging behaviors while at the clinic

What we learned
Manipulating the FA conditions

Where We Are

• Function based treatment models provide flexibility and individualization
• Fostered staff interest in Severe Behavior Team
• Increased services available to high-need population
• Seeing fewer “crisis of the day” clients
• Staff procedural fidelity improved
Parent Responses

• Feeling more confident in decision making
• Understand function, patterns
• Families feeling comfortable with discharge process
• Multi-component treatment packages feel less overwhelming, integrating plans into family life
• Recognition of the importance/practicality of data

Current Developments

• Ongoing supervision/training
  – Severe Behavior Team Meetings
• Data collection
  – Parent Fidelity
  – Indirect Measures
  – Technology
• Safety measures
Limitations & Future Considerations

- Staff availability, existing case loads
- Funding for program
  - Staff, supervision, data analysis, travel
- Hospital policies
  - Community/staff safety
  - Use of restrictive measures
- Environmental/clinical settings
- Formalizing follow-up procedure

What’s Next

- Severe Behavior Program for children with Asperger’s/High Functioning Autism
- Day-treatment program
- In-patient unit
ACKNOWLEDGMENTS

• Jacquie Wynn, PhD, BCBA-D, Director
  Center for Autism Spectrum Disorders
• Marcus Crisis Prevention Program
• Severe Behavior Team
• Clients and their families

THANK YOU