Statewide Implementation of the Pyramid Model: Driving Change to All Levels of the System

Mary Louise Hemmeter
Vanderbilt University
Jennifer Metcalf
Early Childhood Consultant

CEELO Roundtable
May 30, 2019
What Are We Going to Do Today?

• Overview of Pyramid Model
• State Scale-up Model
• Illinois Project
• Data Systems
• Q and A
What does it look like when we are successful?
Big Emotions
What Families Say
What Teachers Say...
Our Focus....

• Adopting a posture of support:
  • Supporting all children
  • Supporting all families
  • Supporting all teachers and providers
• Promoting confidence and competence
• Supporting inclusion, not exclusion
The Pyramid Model: Promoting Social-Emotional Competence and Addressing Challenging Behavior

Universal promotion: All children

Secondary prevention: Some children

Tertiary intervention: Few children
The Pyramid Model: Promoting Social-Emotional Competence and Addressing Challenging Behavior

Universal promotion: All children
“An ounce of prevention is worth a pound of cure.”
- Benjamin Franklin
It’s all about relationships
“Every child needs one person who is irrationally crazy about him.”

Uri Bronfenbrenner
Building Relationships with Every Child

The KIDS who need the most LOVE will ask for it in the most UNLOVING of ways

nickyjohnston.com.au
“Parents need to know that we care before they care what we know”
(Klass, 1997)
The Pyramid Model: Promoting Social-Emotional Competence and Addressing Challenging Behavior

Universal promotion: All children
Supportive Environments

• Predictable and consistent schedules
• Clear expectations
• Minimal number of well designed transitions
• Developmentally appropriate, appropriately challenging, engaging activities
• Planned social opportunities
  • Think, pair, share
  • Peer buddies
  • Cooperative learning activities
• Individualized supports
When children know what to do, how to do it, and are engaged, they are much less likely to be engaging in challenging behavior.
Creating Environments to Support Children’s Engagement and Prevent Challenging Behavior
Individual Supports
The Pyramid Model: Promoting Social-Emotional Competence and Addressing Challenging Behavior

Secondary prevention: Some children
“If a child doesn’t know how to read, we teach.”

“If a child doesn’t know how to swim, we teach.”

“If a child doesn’t know how to multiply, we teach.”

“If a child doesn’t know how to drive, we teach.”

“If a child doesn’t know how to behave, we………..
…………teach? ………punish?”

“Why can’t we finish the last sentence as automatically as we do the others?”

*Tom Herner (NASDE President) Counterpoint 1998, p.2*
Expectations
Friendship Skills
Emotions

- Happy
- Sad
- Proud
- Embarrassed
- Loved
- Scared
- Angry
- Frustrated
- Lonely
- Nervous
Calm Down Strategies

When I feel **ANGRY**
my heart beats fast.
I feel my muscles shake,
but it won’t last.
I can calm down and feel **HAPPY**
too.

When you are **ANGRY**
what can you do?

- Take in my shell
- Give my dog a hug
- Take a walk
- Drink some milk
- Hug a pillow
- Take a nap
Social Problem Solving
The Pyramid Model: Promoting Social-Emotional Competence and Addressing Challenging Behavior

Tertiary intervention: Few children
Tertiary: Individualized Intensive Interventions

- Comprehensive interventions across all settings
- Assessment-based
- Collaborative team
- Skill-building
Evaluating the Efficacy of Classroom-Wide Implementation

Mary Louise Hemmeter, Vanderbilt University
Lise Fox, University of South Florida
Patricia Snyder, University of Florida
James Algina, University of Florida

Funded by the Institute of Education Sciences R324A07212; R324A120178
## Status of Pyramid Practices in EC Classrooms

|                      | TPOT study  
n=50 | Efficacy study  
n=40 | Distance coaching  
n=33 |
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>Range</td>
<td>Mean</td>
</tr>
<tr>
<td>Environmental items</td>
<td>6.0</td>
<td>3-7</td>
<td>5.05</td>
</tr>
<tr>
<td>Red flags</td>
<td>3.0</td>
<td>0-11</td>
<td>3.75</td>
</tr>
<tr>
<td>Percent of indicators</td>
<td>39.1%</td>
<td>14% to 73%</td>
<td>38.24%</td>
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</table>
Practice-Based Coaching
Teacher Implementation of Pyramid Model Practices

Effect Sizes: X Wave
Wave 2 $d = .59$
Wave 3 $d = 1.14$
Wave 4 $d = 1.52$
Figure 2. Mean frequency of positive social interactions during 60 min observation session across waves for Cohort 1 target children whose teachers were in the intervention or control condition. An average of the frequency of positive social interactions for the 2 to 3 target children in each classroom was used to derive the means reported for each group at each wave.
# Fidelity Matters

<table>
<thead>
<tr>
<th></th>
<th>Fidelity</th>
<th>Inter-rater agreement on fidelity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td><strong>Across sessions</strong></td>
<td>93.71%</td>
<td>10.33%</td>
</tr>
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</table>
# Sustainability Year Findings—Intervention Group

<table>
<thead>
<tr>
<th>Wave</th>
<th>Mean</th>
<th>Mean Difference</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wave 4 (Intervention Year)</td>
<td>59.13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wave 5</td>
<td>58.67</td>
<td>-0.46</td>
<td>-0.03</td>
</tr>
<tr>
<td>Wave 6</td>
<td>57.30</td>
<td>-1.83</td>
<td>-0.12</td>
</tr>
<tr>
<td>Wave 7</td>
<td>54.39</td>
<td>-4.7</td>
<td>-0.30</td>
</tr>
<tr>
<td>Wave 8</td>
<td>57.43</td>
<td>-1.69</td>
<td>-0.11</td>
</tr>
</tbody>
</table>

Dependent samples *t* tests comparing the mean for intervention teachers at Wave 4 to the mean at each of Waves 5 to 8. Standard errors of the single-level analyses were corrected for clustering.

Findings show teachers in intervention condition generally sustained their use of Pyramid Model practices at similar level to Wave 4 in primary study year.
Teacher Feedback – Focus Groups
Implementation Issues

• Findings:
  • Coaching has positive effects on teacher implementation of Pyramid practices
  • Evidence that change in teacher practice is related to changes in children’s social skills and challenging behavior
  • Fidelity is related to differences in child outcomes
  • Teachers are satisfied with the intervention and the outcomes

• What does it take?
  • Coaching protocol that is implemented with fidelity
  • Dosage of coaching is measured and reported
Issues Related to Scaling Up

• Dosage of coaching might vary based on:
  • Content of coaching
  • Teacher entry skills or characteristics
  • Other supports for implementation

• Program wide implementation
  • All staff focused on common approach
  • Behavior support personnel
  • Opportunities for peer support

• Training and support for coaches

• Deciding on the focus of coaching – integration with other initiatives
Leadership Team

Data Decision-Making Examining Implementation and Outcomes

Continuous Professional Development

Systems to Identify and Respond to Individual Child Needs

Family Engagement

Staff Buy-In

Program-Wide Expectations

Supports for Pyramid Model Practice Implementation

Data Decision-Making Examining Implementation and Outcomes

Continuous Professional Development

Systems to Identify and Respond to Individual Child Needs

Family Engagement

Staff Buy-In

Program-Wide Expectations

Supports for Pyramid Model Practice Implementation
Program Wide Implementation?

- Make a program wide commitment to all children
- Develop program policies that reduce the likelihood of suspension/expulsion
- Support teachers:
  - Coaching and support in the classroom
  - Reduce stress
- Engage with families around promotion, prevention and intervention
• Develop process around behavior support for children with the most persistent problem behavior
• Provide access to mental health consultants
• Use data to track program incidences, behavior support planning, implementation etc.
Outcomes Associated with Program Wide Implementation

- Improvements in classroom quality
- More intentional instruction around social skills and emotional competencies
- Better relationships with families
- Decrease in problem behavior, increase in social skills
- Decrease MH dollars spent on intervention
- Decrease turnover
Challenges to Program Wide Implementation

• Need for Variations for Different Program Types
  • Center wide – Head Start and Child Care
  • Pre-K in Public Schools – link to school based PBIS work

• Capacity Issues
  • Within child care, lack of resources
  • Across program types, access to expertise around behavior and young children
What has to happen at the state level?

• Adopt state policies that reduce the likelihood of expulsion/suspension
  • Suspension/expulsion policies
  • Ratios

• Build State data systems to track suspensions and expulsions

• Enhance or build state PD systems around:
  • Training teachers
  • Training behavior support/mental health providers
  • Supporting programs
Implementation Science: Formula for Success

Effective and Socially Valid Practices

+ Effective Implementation Methods

+ Implementation Supports

Meaningful Outcomes

Fixsen & Blase, 2012
4 Essential Structures

- State Leadership Team
- PDN of Program Coaches
- Implementation Sites
- Demonstration Sites

Data
1. State Leadership Team

• Is a committed, cross-agency group
• Meets monthly; uses effective meeting strategies
• Establishes implementation sites, program coaches
• Secures resources
• Provides infrastructure
• Builds political investment
• Uses and supports the use of data
• Works to sustain initial effort and to scale up statewide
• Uses the SLT Benchmarks of Quality
2. Professional Development Network (PDN) of Program Coaches

(master cadre, external coaches, etc)

- Deep knowledge of Pyramid Model
- Skilled at providing professional development
- Guide program leadership teams in implementation sites
- Guide practitioner coaches
- Ensure data collection and guide data decision-making
- Link to state team
- Scale-up by providing training to additional cohorts of implementation programs
3. Implementation and Demonstration Sites

Leadership Team

Data Decision-Making
Examing Implementation and Outcomes

Continuous Professional Development & Classroom Coaching

Program-Wide Expectations

Staff Buy-In

Family Engagement

Process for Responding to Challenging Behavior
Program-wide Leadership Team

• Broad representation
• Regular meetings
• Development of an implementation plan
• Use of data for decision-making related to implementation and outcomes
• Uses the PLT Benchmarks of Quality
Program-Wide Demonstrations of High Fidelity Implementation

1. High fidelity demonstrations that exemplify the value of the implementation of the Pyramid Model
2. Demonstration programs help build the political will needed to scale-up and sustain Pyramid Model implementation
3. Demonstration programs provide a model for other programs and professionals, “seeing is believing”
4. Demonstration programs “ground” the work of the state team in the realities and experiences of programs and professionals
4. A Data Decision-Making Approach

- Outcomes are identified
- Fidelity and outcomes are measured
- Data are summarized and used to:
  - Identify training needs
  - Deliver professional development and coaching
  - Make programmatic changes
  - Problem solve around specific children or issues
  - Ensure family and child success
- Data collection AND ANALYSIS is an ongoing process
Data Decision-Making

• Implementation
  • Benchmarks of Quality
  • TPOT, TPITOS, EIPPFI
  • Coaching Logs

• Child
  • Behavior Incidents (BIR)
  • Rating Scales
  • Curriculum-based progress monitoring
  • Behavior/skill progress monitoring

• Families
NAECS Roundtable
May 30, 2019
Pyramid Model Implementation in Illinois

Jenny Metcalf
Early Childhood Consultant
Preschool Expansion Grant

- Federal grant served children through 18 communities, within 25 grantees (school districts and community based programs)
- State match requirement - expanded model to include state funded programs
- Additional money is committed to invest in this model for 2019-2020 school year
- Requirements included a social-emotional curriculum and mental health consultation
Why the Pyramid Model?

- Teacher feedback indicated increasing number of challenging behaviors and the need for additional support
- Suspension and Expulsion Legislation
- Cross sector vision to support social emotional competencies in young children
Statewide Implementation and the Preschool Expansion Pilot

- 2017 Illinois became the 31st Pyramid Model state
- Supplemental Federal Funding for Preschool Expansion Pilot
- Statewide Leadership Team was formed
Building a Collaborative System: Statewide Leadership Team
System Components

State Leadership Team

State Coordinators

Master Cadre

external coach to sites; state T/TA

Demo Sites
Program Leadership Team: administrator, internal coach, data coordinator, others

Implementation Sites
Program Leadership Team: administrator, internal coach, data coordinator, others

Data
To support decision-making for SLT, MC & Implementation/Demo Sites
Building Capacity in T/TA Systems

- Illinois State Board of Education
- Early Head Start/Head Start
- Child Care
- Infant/Early Childhood Mental Health
- Early Intervention
Building Capacity in T/TA Systems: Master Cadre

In 2018, with funding from the Federal Preschool Development Grant – Expansion, Illinois launched its first Pyramid Model Master Cadre of 24 individuals across B-5 PD systems.
Building Capacity in Programs: Preschool Expansion Pilot

- Programs formed a Leadership Team which included: Administrator, Teaching Staff, Instructional Leader, Family Educator, Mental Health Consultant, Behavior Specialist (Psychologist/Social Worker)
- Leadership Team meets monthly for 1-2 hours with an external process coach
- Attend 2 day Leadership Implementation Launch
- Attend trainings on targeted workshops
- Commit to sharing data
The Illinois Pyramid Model Journey: Stages of Program Implementation

**Exploration**
- Determine whether this model meet our needs
- Determine whether staff and administrators are committed to implementing the Pyramid Model
- Ensure that you have the resources you need to participate

**Installation**
- Program Leadership Team begins meeting and completes Program Inventory
- Plan resources (space, subs, etc.) for training
- Training begins
- Coaching begins
- Plans for working with center families are underway
- Establish data and communication systems
- Collect child, teacher and program data
- Data-based decision making

**Initial Implementation**
- Program Leadership Team continues to meet, setting goals based on BoQ
- Cohort Classroom implements Pyramid Model practices with fidelity
- Coaching for program-wide implementation begins
- Data system is in place
- Communication system within program (teachers, administration and families) is in place and program is an active partner with regional EC Community.
- Leadership team makes plans for sustainability and scale up

**Full Implementation**
- Program Leadership Team continues Program Inventory review and Goal-setting process.
- All systems are in-place and operational, including leadership team, ongoing training and coaching, data collection and use, and communication
- Implementation with fidelity is program wide – evidence that all adults and children are involved
- Identify demonstration site
Pyramid Model Consortium distributed an online Participant Survey to each program’s Leadership Team.

All 22 sites completed the survey, for a 100% response rate.

The survey was designed to assess participation in training and overall early Pyramid Model implementation efforts.
Mid-point data from pilot

As shown in Figure 5, all survey respondents find the Pyramid Model to be relevant to their professional practice. They also believe the model has the potential to deliver important benefits – *improving social emotional outcomes for children*, and *reducing suspensions and decreasing program expulsions*. The vast majority (96%) also perceive their site to be committed to moving forward toward program-wide implementation.

Figure 5. Percent of Respondents in Agreement with the Potential of the Pyramid Model Approach

- The Pyramid Model is relevant to my professional practice: 9% Agree, 91% Strongly Agree, 100% total
- This pilot has the potential to improve social emotional outcomes for children: 9% Agree, 91% Strongly Agree, 100% total
- This pilot has the potential to reduce suspensions and expulsions: 17% Agree, 83% Strongly Agree, 100% total
- I believe our site is committed to moving forward toward program-wide implementation: 26% Agree, 70% Strongly Agree, 96% total
- We have the resources and human support we need to make this work successful: 48% Agree, 30% Strongly Agree, 78% total
Feedback Loops
Providing feedback and data on implementation

Support Loops
Providing supports for effective practices implemented with fidelity.
Types of data

- Readiness checklist
- Benchmarks of Quality
- Teaching Pyramid Observation Tool (TPOT)
- Behavior Incident Reports
# Illinois Readiness Checklist

## Readiness Process for Site Implementation of the Pyramid Model in Illinois

<table>
<thead>
<tr>
<th>Items to Consider</th>
<th>Yes</th>
<th>No</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Do teachers in your program have a good understanding of social and emotional development for the age that they work with?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Do teachers in your program have a good understanding of how to support social emotional development for the age that they work with?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Do teachers in your program use developmentally appropriate practices with the children they work with?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Is there (or will there be) a long-term commitment from program leadership to implementing the Pyramid Model to fidelity in your program?</td>
<td></td>
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</tr>
<tr>
<td>5. Do the current leaders/administrators participate in shared leadership to create common goals and outcomes for program?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Do teachers and other support staff collaborate to promote and support the goals and outcomes of the program?</td>
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<tr>
<td>7. Currently, is there staff member(s) who can help with the additional workload of implementation a new initiative?</td>
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</tr>
<tr>
<td>8. Based on external evaluation sources (i.e., CLASS, ECERS, Excelerate Circle of Quality, and/or NAEYC Accreditation) is your program aligned with quality standards?</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>9. Does your program currently promote ongoing professional development related to</td>
<td></td>
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</tr>
</tbody>
</table>
Key Components - Benchmarks of Quality

- Establish a Leadership Team
- Staff Buy-in
- Family Involvement
- Program Wide/Community Wide Expectations
- Classroom Implementation
- Staff Professional Development
- Behavior Support/ Mental Health Consultants
- Data Based Decision Making
Levels of Implementation

**LEVEL 1: Beginning Site**
- Access Pyramid Model Training content, Implicit Bias
- Practice Based Coaching
- View Administrator Webinar

**LEVEL 2: Practicing Site**
- Active Leadership Team
- Implementation Plan based on Program Wide
- Benchmarks of Quality

**LEVEL 3: High Fidelity Site**
- Use of TPOT and/or TPITOS
- 80% or higher of PM Practices
- Internal coach

**Level 4: Mentor/Demo Site**
- Support other Level 2/3 programs
- Available for Level 2/3 to see it in action
Next steps

- Seek funding for additional master cadre
- Secure more cohorts through a fee for service opportunity
- Continue to work towards getting all entities on board
- Community wide expansion
- Connect to higher education
What is the BIRS 2.0?

• The Behavior Incident Reporting System (BIRS) collects and analyzes behavior incidents in early childhood settings – similar to tracking of Office Discipline Referrals; BUT DIFFERENT

• Initially developed in 2010 (TACSEI); revised by the Pyramid Equity Project
  • Identifies disproportionate discipline
  • Tracks suspensions and expulsions

https://challengingbehavior.cbcs.usf.edu/implementation/data/BIRS.html
BIR Form

- Categories:
  - Problem Behavior
  - Activity
  - Others Involved
  - Possible Motivation
  - Response
  - Administrative Follow-up
## BIR Analytic Elements

<table>
<thead>
<tr>
<th>Measure</th>
<th>Analysis</th>
<th>Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Behavior incident frequency</strong></td>
<td>• Program</td>
<td>• Type of Problem Behavior</td>
</tr>
<tr>
<td></td>
<td>• Classroom</td>
<td>• Activity</td>
</tr>
<tr>
<td></td>
<td>• Child</td>
<td>• Others involved</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Possible motivation</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Strategy/Response</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Administrative follow-up</td>
</tr>
<tr>
<td><strong>Disproportionality</strong></td>
<td>• BIR Composition</td>
<td>• Race/Ethnicity</td>
</tr>
<tr>
<td></td>
<td>• BIR Risk</td>
<td>• Gender</td>
</tr>
<tr>
<td></td>
<td>• Risk Ratio</td>
<td>• IEP status</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• DLL</td>
</tr>
</tbody>
</table>
Tracking Administrative Actions

- Expulsion/Dismissal
- In School Suspension
  - Temporary removal from classroom
  - Time in different classroom or with adult outside the classroom
- Short Term Suspension
  - Sent home for remainder of day
- Suspension
  - Sent home for one or more days - Child is sent home and not allowed to return to school for one or more days.
### Equity Profile Alerts

#### INCIDENT ALERTS

- Check Race/Ethnicity Equity Profile
- Check Gender Equity Profile
- Check DLL Status Profile

#### IN-SCHOOL SUSPENSION ALERTS

- Check IEP Status ISS Equity Profile
- Check DLL Status ISS Equity Profile

#### OUT-of-SCHOOL SUSPENSION ALERTS

- Check Race/Ethnicity OSS Equity Profile
- Check Gender OSS Equity Profile

#### DISMISSAL ALERTS

- Check IEP Status Dismissal Equity Profile
## Statements

**Black or African American**

<table>
<thead>
<tr>
<th>Diff. in R Comp.</th>
<th>The percentage of BIRs attributed to Asian children is 7.2 percentage points lower than expected given Asian children’s percentage of the child enrollment.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIR Comp.</td>
<td>Of the 721 BIRs generated, 0% were attributed to Asian children.</td>
</tr>
<tr>
<td>Risk</td>
<td>Of the 20 Asian children, 0% have at least one BIR.</td>
</tr>
</tbody>
</table>

**Hispanic or Latino of any race**

<table>
<thead>
<tr>
<th>Diff. in R Comp.</th>
<th>The percentage of BIRs attributed to Hispanic or Latino of any race children is 2 percentage points lower than expected given Hispanic or Latino of any race children's percentage of the child enrollment.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIR Comp.</td>
<td>Of the 721 BIRs generated, 54.3% were attributed to Hispanic or Latino of any race children.</td>
</tr>
<tr>
<td>Risk</td>
<td>Of the 156 Hispanic or Latino of any race children, 18.6% have at least one BIR.</td>
</tr>
</tbody>
</table>

### Child Comp.

- **Black or African American**
  - Of the 38 children who received at least one BIR, 2.6% are Black or African American; this group comprises 3.6% of the total child enrollment.
  - The average number of BIRs per child for Black or African American children is 1.15 times the BIR Rate for all other children.
  - Children identified as Black or African American receive an average of 3 BIRs per child.
  - Black or African American children are 0.72 times more likely to have at least one BIR than all other children.

- **Hispanic or Latino of any race**
  - Of the 38 children who received at least one BIR, 76.3% are Hispanic or Latino of any race; this group comprises 56.5% of the total child enrollment.
  - The average number of BIRs per child for Hispanic or Latino of any race children is 0.92 times the BIR Rate for all other children.
  - Children identified as Hispanic or Latino of any race receive an average of 2.52 BIRs per child.
  - Hispanic or Latino of any race children are 2.48 times more likely to have at least one BIR than all other children.

### BIR Ratio

- **Black or African American**
  - Children identified as Black or African American receive an average of 3 BIRs per child.
- **Hispanic or Latino of any race**
  - Children identified as Hispanic or Latino of any race receive an average of 2.52 BIRs per child.

### Risk

- **Black or African American**
  - Black or African American children are 0.72 times more likely to have at least one BIR than all other children.
- **Hispanic or Latino of any race**
  - Hispanic or Latino of any race children are 2.48 times more likely to have at least one BIR than all other children.
Pyramid Model Equity Coaching Guide

- Resource for classroom coaches
- Not an additional fidelity of implementation measure
- Is part of collaborative practice-based coaching process

https://challengingbehavior.cbcs.usf.edu/docs/Pyramid-Model-Equity-Coaching-Guide.pdf
The Promise, The Challenge
The Promise, The Challenge
Visit us online at ChallengingBehavior.org