THE IMPORTANCE OF MEASURING OUTCOMES IN PBIS ORGANIZATIONS SERVING INDIVIDUALS WITH I/DD

17TH INTERNATIONAL CONFERENCE ON POSITIVE BEHAVIOR SUPPORT

ROBERT PUTNAM, STEWART SHEAR, MEG DEPASQUALE, JENNIFER JEFFREY-PEARSSALL

MARCH 13, 2020
Devereux was founded in 1912 by special education pioneer Helena T. Devereux, a teacher in a south Philadelphia public school.

Today, we are a recognized national provider for individuals, families, schools and communities, serving many of the most vulnerable members of our society in the areas of:

- Autism
- Intellectual/developmental disabilities
- Behavioral Health
- Dual Diagnosis (I/DD and MH)
- Brain Injury
- Emotional Behavior Disorders

Our unique model integrates the latest scientific and medical advancements, with a best practices framework to provide practical, effective and efficient care, for over 25,000 children and adults every year.
As part of our continuum of care, our 7,500+ team members across 13 states support and empower children, adolescents and adults through services such as:

- Acute care
- Treatment in residential settings
- Community-based living
- Supportive living
- Special education day schools
- Foster care
- Employment and transitional services
- Vocational training
- School and Family consultation
- Outpatient and specialized programs
Devereux Positive Behavior Intervention and Supports (D-PBIS)

- Devereux began development of PBIS in the schools in the local Philadelphia area in 1999.

- PBIS was adopted by the organization in 2012 as a framework for service provision (D-PBIS) for all centers.

- Development of a D-PBIS framework for adults with intellectual and developmental disabilities began in 2013.

- Roll out of the first D-PBIS I/DD pilot began in the late fall of 2014.

- In 2020 there are six Devereux centers implementing the D-PBIS I/DD framework with two other centers in development.
When implementing D-PBIS I/DD there are at least two questions that need to be considered.

- Is D-PBIS I/DD being implemented with fidelity?
- What impact does D-PBIS I/DD have on targeted outcomes?
Question 1

Is D-PBIS I/DD being implemented with fidelity?

- Yes: Analyze Outcomes
- No: Analyze Fidelity Data
D-PBIS I/DD Fidelity Measures

- **Implementation Fidelity**
  - Program implementation – engagement, interactions, materials (Reid and Parsons 1990)
  - Instructional fidelity – the teaching abilities of staff
  - Acknowledgements – for individuals and staff
  - Compliance checks – frequency of coaching per residence
  - Home Spot Check – program generalization of D-PBIS I/DD
  - Tiered Fidelity Inventory (TFI)

- **D-PBIS I/DD Satisfaction** – every 90 days for first 2 years
  - Individual
  - Staff
  - Consultation (monthly)
Scope of Fidelity Analysis

- Organizational Fidelity – measurement across all centers

- Center Fidelity - measurement within one center across all programs combined

- Within Center Fidelity
  - By Program Cluster
  - By Individual Program
The following examples compare the fidelity data between the Devereux Adult Services center and an individual residence noted for significant challenging behaviors.

- The implementation goal is 80% for materials, interactions, and engagement.
- The instructional goal for staff teaching abilities is 90%.
- The staff, individual and consultation satisfaction goal is 80%.
Positive Interactions of Staff with Individuals (4:1 Ratio or 80%)
Engagement Rates of Individuals (80%)
Instructional Integrity of Staff (90%)
Acknowledgements of Individuals and Staff
Staff Satisfaction with D-PBIS (80%)
Home Spot Check

- Measures Tier 1 generalization of D-PBIS in the home
- Can be an announced or unannounced visit to the home
- Takes about 10 minutes to complete
- Has total scores for the home environment and D-PBIS I/DD implementation
- Can be used for an item analysis
- Used in conjunction with the program and instructional data
<table>
<thead>
<tr>
<th>Category</th>
<th>YES</th>
<th>NO</th>
<th>NA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. D-PBIS I/DD Information</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is there a current weekly Program Schedule posted?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is there a current activity calendar?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are the activities marked on the calendar for the designated activity times?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the Teaching Matrix posted?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are the identified lessons to be taught and the lessons completed marked on the Teaching Matrix?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are the nine Key Signs posted?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are the D-PBIS posters visible in the home?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Calculate Percentage:</strong> # Yes / # Yes + # No = ________%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>B. D-PBIS I/DD Implementation</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Is the activity schedule being followed?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are materials available for all of the individuals?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are staff interacting positively with the individuals?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Are the individuals engaged in an activity?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acknowledgement cards:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acknowledgement cards are carried by staff on shift</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acknowledgement Cards are visible in the drawing container</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff reports monthly acknowledgement for using Acknowledgement cards</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Individual or staff report drawings for the individuals occur every 1 or 2 weeks</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>House meeting minutes are recorded at least weekly – review the minutes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Program Consultation includes Performance Feedback</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Errorless learning is correctly demonstrated when teaching with lesson plans</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>System self-management is set up correctly (behavior goal, #days, tracking system, celebration)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Questions to ask:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If Performance training is used in the community, describe how (identify behavior, prompt/praise/summary)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>If Corrective instruction is used, ask when do you use it (in the moment when behavior occurs)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>C. D-PBIS I/DD Non-verbal</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-verbal – Picture activity schedule posted?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Verbal – Individual communication systems?</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-verbal – Minimal verbal instruction (gestural or modeled prompts)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Calculate Percentage:</strong> # Yes / # Yes + # No = ________%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Tiered Fidelity Inventory

- Based on the Tiered Fidelity Inventory form for I/DD
  - (R. Horner and B. Putnam)

- The Devereux adapted version of the TFI includes changes that reflect contextual variables, processes, and policies.
  - In pilot stage for inter-rater reliability and internal consistency for Tier 1
  - Will be used as an internal and external assessment annually
  - Can be used as a repeated measure
**Program Name:**

**Coach's Name:**

**Directions:** Enter the program name and coach's name in the boxes above. Below, enter the date the TFI was completed at the top. Then, enter the team's scores for each item. Graphs will generate automatically once data is entered.

<table>
<thead>
<tr>
<th>Tier</th>
<th>Subscale</th>
<th>Feature</th>
<th>[Date]</th>
</tr>
</thead>
<tbody>
<tr>
<td>TFI Tier 1</td>
<td>Teams</td>
<td>1.1 Team Composition</td>
<td></td>
</tr>
<tr>
<td>TFI Tier 1</td>
<td>Teams</td>
<td>1.2 Team Operating Procedures</td>
<td></td>
</tr>
<tr>
<td>TFI Tier 1</td>
<td>Implementation</td>
<td>1.3 Behavioral Expectations</td>
<td></td>
</tr>
<tr>
<td>TFI Tier 1</td>
<td>Implementation</td>
<td>1.4 Teaching Expectations</td>
<td></td>
</tr>
<tr>
<td>TFI Tier 1</td>
<td>Implementation</td>
<td>1.5 Problem Behavior Definitions</td>
<td></td>
</tr>
<tr>
<td>TFI Tier 1</td>
<td>Implementation</td>
<td>1.6 Problem Behavior Policies</td>
<td></td>
</tr>
<tr>
<td>TFI Tier 1</td>
<td>Implementation</td>
<td>1.7 Staff Professional Development</td>
<td></td>
</tr>
<tr>
<td>TFI Tier 1</td>
<td>Implementation</td>
<td>1.8 Program Procedures</td>
<td></td>
</tr>
<tr>
<td>TFI Tier 1</td>
<td>Implementation</td>
<td>1.9 Individual Feedback and Acknowledgment</td>
<td></td>
</tr>
<tr>
<td>TFI Tier 1</td>
<td>Implementation</td>
<td>1.10 Staff Feedback and Acknowledgment</td>
<td></td>
</tr>
<tr>
<td>TFI Tier 1</td>
<td>Implementation</td>
<td>1.11 Staff Involvement</td>
<td></td>
</tr>
<tr>
<td>TFI Tier 1</td>
<td>Evaluation</td>
<td>1.12 Stakeholder Involvement</td>
<td></td>
</tr>
<tr>
<td>TFI Tier 1</td>
<td>Evaluation</td>
<td>1.13 Problem Behavior Data</td>
<td></td>
</tr>
<tr>
<td>TFI Tier 1</td>
<td>Evaluation</td>
<td>1.14 Data-based Decision Making</td>
<td></td>
</tr>
<tr>
<td>TFI Tier 1</td>
<td>Evaluation</td>
<td>1.15 Fidelity Data</td>
<td></td>
</tr>
<tr>
<td>TFI Tier 1</td>
<td>Evaluation</td>
<td>1.16 Annual Evaluation</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tier</th>
<th>Subscale</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>TFI Tier 1</td>
<td>Teams</td>
<td>0%</td>
</tr>
<tr>
<td>TFI Tier 1</td>
<td>Implementation</td>
<td>0%</td>
</tr>
<tr>
<td>TFI Tier 1</td>
<td>Evaluation</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Tier 1 Total</strong></td>
<td></td>
<td>0%</td>
</tr>
</tbody>
</table>
Question 2

If D-PBIS I/DD is being implemented with fidelity then:

- What impact is the D-PBIS I/DD framework having on the targeted outcomes?

“Outcomes are the changes you expect to result from your program. These can be changes in individuals, systems, policies or organizations that you seek to achieve.”

(Oxford Dictionary, 2020)
# D-PBIS I/DD - Data Collection Measures

<table>
<thead>
<tr>
<th>ASSESSMENT CATEGORY</th>
<th>ASSESSMENT FORM</th>
<th>PURPOSE</th>
<th>FREQUENCY</th>
<th>EXPECTED OUTCOMES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Integrity</td>
<td><strong>Active Engagement</strong></td>
<td>Measure rates of individual engagement in activities</td>
<td>Weekly – Direct Observation (5 minutes)</td>
<td>Goal 80% Engagement 52% for Pre-Vocational programs</td>
</tr>
<tr>
<td></td>
<td><strong>Positive Interactions</strong></td>
<td>Measure the relationship between staff and individuals</td>
<td>Weekly – Direct Observation (10 minutes)</td>
<td>Goal 80% Positive Interactions</td>
</tr>
<tr>
<td></td>
<td><strong>Materials for Activities</strong></td>
<td>Measure the availability of materials for engagement</td>
<td>Weekly – Direct Observation (5 minutes)</td>
<td>Goal 80% Materials Available</td>
</tr>
<tr>
<td></td>
<td><strong>Teaching Skills</strong></td>
<td>Measure the teaching skills of staff</td>
<td>Weekly – Direct Observation (15-20 minutes)</td>
<td>Goal 90% Teaching integrity</td>
</tr>
<tr>
<td></td>
<td><strong>TFI - I/DD</strong></td>
<td>Measures Fidelity of PBIS Components</td>
<td>Annually</td>
<td>Goal – 80% of elements in system</td>
</tr>
<tr>
<td>D-PBIS Satisfaction</td>
<td><strong>Staff Satisfaction Survey</strong></td>
<td>Determine the staff satisfaction of the PBIS model over time</td>
<td>Quarterly – Staff Satisfaction Survey</td>
<td>Satisfaction level score and survey score changes over time</td>
</tr>
<tr>
<td></td>
<td><strong>Individual Satisfaction Survey</strong></td>
<td>Determine the individuals’ satisfaction level of the PBIS model</td>
<td>Quarterly – Individual Satisfaction Survey</td>
<td>Satisfaction level score and survey score changes over time</td>
</tr>
<tr>
<td></td>
<td><strong>Consultation Satisfaction Survey</strong></td>
<td>Determine the staff satisfaction of the Consultation process</td>
<td>After each Consultation by the Coach</td>
<td>Satisfaction level score and survey score increases over time</td>
</tr>
<tr>
<td></td>
<td><strong>Parent/Guardian Satisfaction Survey</strong></td>
<td>Measure parent/guardian satisfaction of the PBIS model</td>
<td>Annually</td>
<td>Satisfaction level score and survey score changes over time</td>
</tr>
<tr>
<td>Outcome Measures</td>
<td><strong>Restraints</strong></td>
<td>Measure restraint frequency pre and post PBIS implementation</td>
<td>Monthly</td>
<td>Decreasing trend in frequency over time</td>
</tr>
<tr>
<td></td>
<td><strong>Behavior Incidents</strong></td>
<td>Measure Behavior Incident change over time</td>
<td>Monthly</td>
<td>Decreasing trend in frequency over time</td>
</tr>
<tr>
<td></td>
<td><strong>Restrictive Plans</strong></td>
<td>Number of Behavior Support plans that contain restrictive procedures</td>
<td>Annually</td>
<td>Decreasing trend over time</td>
</tr>
<tr>
<td></td>
<td><strong>Target Behaviors</strong></td>
<td>Measure frequency change in target behaviors</td>
<td>Monthly</td>
<td>Decreasing trend in frequency over time</td>
</tr>
<tr>
<td></td>
<td><strong>Workers Compensation</strong></td>
<td>Measure number and amount of workers compensation claims</td>
<td>Quarterly</td>
<td>Decreasing trend in claims over time</td>
</tr>
<tr>
<td></td>
<td><strong>Quality of Life</strong></td>
<td>Measure QOL Scores annually Compare QOL scores with Individual satisfaction</td>
<td>Annually</td>
<td>Increasing QOL scores across individuals</td>
</tr>
</tbody>
</table>
D-PBIS I/DD Outcomes

- Outcomes at Devereux for D-PBIS I/DD are the same across all centers serving adults

- **Key Outcome Targets**
  - Physical interventions - restraints
  - Major Incidents - Challenging behaviors
  - Positive Behavior Support Plans with restrictive procedures
  - Challenging and Positive Behavior trends
  - Quality of Life
  - Progress on ISP goals
  - Staff Retention
  - Workers Compensation
Outcomes and Evaluation

- Evaluating outcomes and the impact of PBIS I/DD
  - Frequency of data collection
  - Frequency of data analysis
  - Analysis methodology used at the Leadership and Treatment team levels
  - Solutions focused
  - Follow up and feedback
  - Acknowledgements
Personal Emergency Interventions (PEIs) 2014-2019

- Adult Services
- Ferdinand
- Linear (Adult Services)
- Linear (Ferdinand)
2019 Personal Emergency Intervention
Adult Services=32
Ferdinand=17
Major Challenging Behaviors
2019

2019 Major Behaviors
AWOL, Aggression, Property Destruction, Highly Risky Behaviors, Unsafe Vehicle Behavior, Sexual, Suicidal
Adult Services=295
Ferdinand=48

![Graph showing monthly occurrences of major behaviors for 2019.]
Frequency of Aggression Per Month 2019

2019 Aggression
Adult Services=216
Ferdinand=36
Using Power BI for Data Decision Making for Measuring Implementation Fidelity and Targeted Outcomes (In Development)

D-PBIS - Power BI

D-PBIS Dashboard - Program Analysis

Date Range
11/1/2019 11/30/2019

Program Type(s)
Residential

Center(s)
Multiple selections

Select Program(s) to View Summary
All

Please Select Program(s) Above to View Summary

Major Problem Behaviors

Minor Problem Behaviors

304

N/A

Total Problem Behavior Occurrences by Interval

6 Month Problem Behavior Trend

Behavior Type

Major

336

327

227

304

249

195

Top 5 Major Behaviors

Self-Injuri... 19

AWOL 26

Property Da... 27

Physical Aggressi... 232

Client-level data is only accessible to your center. Please select from the dropdown above

Total Major Problem Behaviors

N/A

Major/Minor Behaviors

Behaviors

Major

Multiple

Note: The client-level data is limited only to selected clients.
Select from Available Programs to view CI
All
Select Clients to Display Below
All

https://app.powerbi.com/groups/majors/ke816469-4751-4412-8062-90e6a28f3b41/Reports/15514655-7165-4790-8690-4659e3723020
Summary

- Prior to evaluating outcome data, you need to insure that PBIS I/DD is being implemented with fidelity

- Outcomes for PBIS I/DD measure the relative impact that PBIS I/DD is having on the individuals and the residences in which they live

- The data revealed that PBIS I/DD is being implemented with good fidelity, has high satisfaction rates among the individuals and staff and is having a positive impact in reducing the use of physical interventions

But….

**are we on the right track?**

- 1. What outcomes are important for funders, family, providers and individuals?
- 2. What outcomes are we measuring and what outcomes should we be measuring?
- 3. Should there be a consensus among providers for standardizing core outcomes for adults with I/DD in PBIS programs?
Do You Have Any