Expanding the Toolbox: Translating Alternative Interventions into Behavioral Strategies

Christopher S. Baglio, EdD, MS
Director of Program Development
Liberty Healthcare Corporation

Liberty Healthcare Corporation
THE FREEDOM TO SUCCEED™

Presentation Overview

A functional approach to introducing non-traditional strategies with working with people who have intellectual and developmental disabilities.

Objectives

- Review of controversial interventions
- An introduction to traditional interventions
- Applying the scientific method to introducing alternate strategies
- Establishing best practice

2

Why Manage Behaviors

- They are dangerous
  - Aggression
  - Self-Injury
  - Pica
- They are disruptive
  - Stereotypic behavior
  - Noncompliance
  - Verbal outbursts
- All behaviors do not need to be managed

Discrimination Training

3

Controversial ….. Once Mainstream

- Lobotomies
  - 1935 – 1980s
  - Antonio Egas Moniz – Nobel Prize

Conclusion: Slight improvement (?). Patient is essentially a human vegetable; she is no longer assaultive or destructive.

FRONTAL LOBOTOMY IN THE TREATMENT OF CHRONIC PSYCHOTIC OVERACTIVITY*

REPORT OF SIX CASES

LOUIS H. COHEN, M.D., RUDOLPH G. NOVICK, M.D., AND ABRAHAM ETTLESON, M.D.,**

4

Controversial ….. Once Mainstream

- Insulin Shock Therapy
  - Injected with large doses of **insulin** in order to produce daily comas over several weeks.
  - First form of shock treatment.
  - 1927
  - "Sakel's Technique"
  - …more than 70 % of his patients improved after insulin shock therapy

- Narcotherapy
  - Putting someone to sleep for a period of time (data….)

Controversial ….. Once Mainstream

- Hydrotherapy
  - 1900s

- Facilitated Communication
  - Person trapped in their body
  - Cure
  - Research showed the facilitator influenced

Controversial ….. Once Mainstream

- Secretin
  - Controlled studies
  - Gastrointestinal

"Children with chronic, active diarrhea showed a reduction in aberrant behaviors when treated with the secretin but not when treated with the placebo. Children with no GI problems are unaffected by either secretin or placebo.

The improvement seen with secretin in children with autism/PDD and chronic diarrhea suggests that there may be a subtype of children with autism/PDD who respond to secretin."

Kern, Miller, Evans, & Trivedi, 2002

- Sensory Integration – Jean Ayres
  - **Visual,**
  - **Auditory,**
  - **Gustatory,**
  - **Olfactory,**
  - **Tactile,**
  - **Vestibular,**
  - **Proprioception.**

7

Traditional Interventions

Anxiety Disorder

- Systematic Desensitization
- Psychopharmacology

Personality Disorders

- Dialectical Behavior Therapy
- Psychotherapy

Intellectual and Developmental Disabilities

- Applied Behavior Analysis
- Positive Behavioral Supports

8

Behavior Analysis

- *Behavior analysis* involves the study of the relationship between behavior and the environmental events.

- ABCs

- **A**ntecedent: Before

- **B**ehavior: During

- **C**onsequence: After

9

Applied Behavior Analysis

- *Behavior analysis* involves the study of the relationship between behavior and environmental events.

- ABCs

    - **A**ntecedent: Before

    - **B**ehavior: During

    - **C**onsequence: After

- <u>All</u> behaviors occur for a reason.
    - Both good *and* bad behaviors
    - No behaviors occur "Out of the Blue"

- Both good *and* bad behaviors continue to occur because they work or are effective.

- Both good *and* bad behaviors stop occurring because they no longer work or are ineffective.
    - Or, there is a more efficient way to meet your needs

10

5

Functional Analyses

- Informal
  - E.g., Questions About Behavioral Function (QABF)
- Descriptive
  - Collect data on ABCs
- Probe
  - Develop and implement a strategy, evaluate effects
- Experimental or Analogue
  - Induce the behavior

- Counseling
  - What strategies may be implemented during counseling to determine reasons for why a behavior occurs?
  - Don't stop with a description about some concept or feeling.
  - Break the report down to events and consequences that are eliciting and maintaining the behavior.

11

Functions of Behavior

- Attention
- Escape or avoidance
- Tangible
- Nonsocial (e.g., self stim, pain, psychiatric)

Why is the behavior occurring?

- Anxiety around completion (nonsocial and escape)

12

6

Preventative Measures

- Behaviors have an increased likelihood of being displayed under particular circumstances.
  - Setting events
  - Stimulus control
- Preventative measures
  - Manipulate the environment to reduce chances the behavior will occur
  - Not solution

- Examples of situations that can lead to problem behaviors.
  - Overstimulation
  - Unstructured down time
  - Change in routine
  - Visits from family
  - Long bus rides
  - Lack of sleep
  - Hunger
  - Presence of particular people
  - Lack of cigarettes
  - Etc.

13

Function-Based Positive Interventions

- Reinforcement
  - Positive (addition)
  - Negative (subtraction)
- Noncontingent reinforcement
  - Free, independent of behavior displayed
  - Superstitious behavior
- Contingent reinforcement
  - Reinforce the absence of a behavior
    - Differential reinforcement of other behavior (DRO)
  - Reinforce the presence of a behavior
    - Differential reinforcement of alternative (DRA) or of incompatible behavior (DRI)
 - Extinction
    - No not reinforce the targeted behavior

Change Light Change

14

Replacement Behavior Training

- Based on the function
- Identify an alternate behavior to increase
- Reinforce the alternate behavior
- Do not reinforce the target behavior
- The alternate behavior will replace the target behavior (it works)

- Functional Communication Training
- Increased participation
- Discrimination Training

Functional Communication Training - Tangible
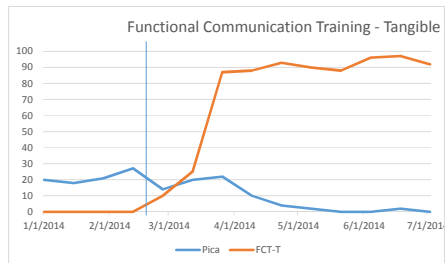
15

Less Behavioral Interventions

...or are they

- Structured Teaching
- Video-Self Modeling
- Counseling
  - Anger Management
  - Self Regulation
  - Self Determination

16

Structured Teaching

- Structured programs for children with autism associated with most positive outcomes
  - (Lockyer & Rutter, 1969; Rutter, Greenfeld, & Lockyer, 1967; Schopler, Mesibov, DeVellis, & Short, 1981).
- Structure provides clarity and predictability
  - (Bartak, 1978; Bartak & Rutter, 1973; Schopler, Brehm, Kinsbourne, & Reichler, 1971)
- Structured teaching is the main approach at Division TEACCH for developing skills and minimizing behavioral difficulties
  - (Treatment and Education of Autistic and related Communication handicapped Children: TEACCH, The University of North Carolina at Chapel Hill)
- Developed for autism, generalized to developmental disabilities in general

Autism Spectrum Disorder
- WEAKNESSES
  - Deficits in communication
  - Deficits in social skills
  - Routine based
  - Hyper attentive to details
    - Cue Dependent
  - Organizational difficulties
  - Sensory
- STRENGTHS
  - Visual skills
  - Routine based

17

Individual Work Systems

- Provides organization and visual clarity.
- Answers the following four basis questions:
  - What do I have to do?
  - How much do I have to do?
  - When am I finished?
  - What do I do next?
- Developed at level of individual
- Reinforce (negative and positive) based on completion of task.

18

Physical Organization

- Utilization of physical space and content to clarify the environment

- Physical Layout
- Selecting Work Areas
- Boundaries

19

How would you feel?

20

10

Physical Organization

- Utilization of physical space and content to clarify the environment
  - Physical Layout
  - Boundaries
  - Leisure, Snack
  - Selecting Work Areas
- Based on the individual
  - Activity level
  - Distractibility
  - Level of disruptions
- Clear from distractions
  - Move mirrors
  - Cover windows
  - Blank walls
- Accessibility
  - Ambulation
  - Work Material

21

Schedules

- Provide visual cues that help the individual anticipate and predict activities

- Convey when more preferred activities or reinforcers will be available

- Facilitate transitions between areas or activities in the environment

22

General Schedule

- General Area Schedule
  - Outlines a period of time for the group
    - Meals
    - Breaks
    - Work
    - Chores
    - Etc.

9:00	Arrive at work, put things away
9:15	Work Session 1
9:45	Work Session 2
10:15	Break
10:45	Work Session 3
11:15	Prepare for Lunch
11:30	Lunch
12:30	Work Session 4
1:00	Work Session 5
1:30	Break
2:00	Work Session 6
2:30	Clean up
3:00	End of Work Day

23

# Individual Schedules

- Individual Schedule
  - Tells sequence activities will occur
  - Tells when preferred activities will be available
  - Should be manipulated
  - Arranged from top to bottom or left to right
  - Alternate easy with difficult activities
  - Facilitates transitions between activities or settings
  - **HELPS WITH ROUTINE BASED BEHAVIOR (OOPS)**

24

12
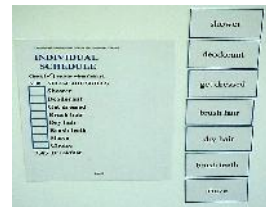
Individual Work System

- Provides organization and visual clarity
- Answers the following four basis questions:
  - What do I have to do?
  - How much do I have to do?
  - When am I finished?
  - What do I do next?
- Developed at level of individual
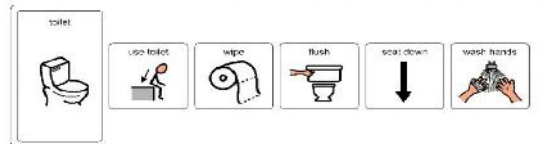
Written System

- Task is broken down into smaller steps
- Steps are organized into correct sequence
- Person is able to manipulate the written schedule

Copy Example

___ Get paper from inbox

___ Take paper to copy machine

___ Place paper in feeder (face up)

___ Press 5

___ Press the start button

___ Remove copies

___ Place paper in outbox

Matching Work System

- Numbers
- Colors
- Pictures
- Faces
- Etc.
  - Incorporate Special Interests Whenever Possible

Basket/Object System

- Single Tasks
- Single Basket
- Multiple Baskets
  - Top to Bottom
  - Left to Right
  - Finished to the Right

Visual Structure Within the Home

Within Stimulus Prompting

Video Self-Modeling

Everyone Wants In

- Choose a behavior to target.
- Gather the correct equipment.
- Collect Baseline data.
  Plan the video recording. "script"
- Record the video.
- Determine the environment and time of day for watching the video.
- Determine if a reward will be necessary.
- Show the video.
- Collect Data to Monitor Progress.
  Fade the Video as Needed.

National Professional Development Center on Autism Spectrum Disorders

- Anger Management
- Social Skills Training
  - Meeting people, departing
- Participation
  - Work
  - School
  - Leisure activities
- Appointments
  - Dentist
  - Physician
  - Barber

- https://youtu.be/sNGj57p7vFM

Counseling

- Functioning Level
- Group or individual
- Outcomes

- Visual
- Repetition
- Structured plan
- Reinforcement
- Practice
- Self-Reporting and data collection

31

Anger Management

- Define anger
  - Feelings
  - Behaviors
- Triggers
  - Functional analysis
- Coping strategies
  - Replacement behavior strategy
- Consequences of behavior
  - Anger – not feel good
  - Calm, negative reinforcement
  - Praise, positive reinforcement
- Practice
  - Teaching opportunities

32
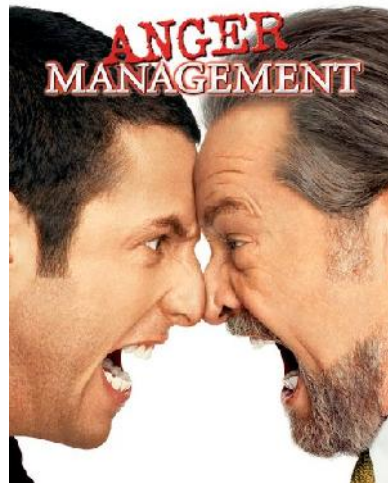
Self-Regulation

Self-regulation abilities include goal setting, self-monitoring, self- instruction, and self-reinforcement (Harris & Graham, 1999; Schraw, Crippen, & Hartley, 2006; Shunk, 1996)

- Determine repertoire
- Identify cue
  - Involve the person

  Impulse Control

- Explore settings
  - Shopping, outside
  - School, work
- Classroom training
- Identify and recognize triggers
- Natural environment
  - Create training opportunities
  - Incidental training
  - Fluency training - automatic

I Am
I Calm
I Feel
I Choose
I Solve

33

Self-Determination

Not all choices are acceptable

- Choice
- Historical
  - ICF/IID
- Current
  - Options counseling
- Teaching opportunities
  - Without a history choice and even, negative impact of behavioral outcomes
- Person Centered Planning

"Control your own destiny or someone else will."

Jack Welch

BE YOUR OWN HERO

34

17

Introducing Novel Approaches

"In the interest of encouraging new ideas and strategies, it would appear helpful to concentrate less on the origin and nature of the methods proposed, emphasizing instead that the approach be systematically evaluated and analyzed."

Jacobson et al., 1995

35

Separating the Wheat from the Chaff
Kay & Vyse, 2005

- Education
- Presenting the idea of data-based decision
- Designing and implementing the test
  - ID target behavior
  - Design the test
  - Develop decision rules
  - Collecting the data
  - Evaluating the results and making a decision

36

Identify Target Behavior/Symptom

- Behaviors
- Psychiatric Symptoms
- Adaptive Skills

- Anything that can be seen or heard.
- Examples of behaviors:
  - Scratching
  - Spitting
  - Head Banging
  - Smiling
  - Talking
- Examples that are not behaviors:
  - Psychomotor agitation
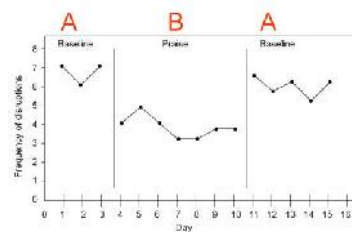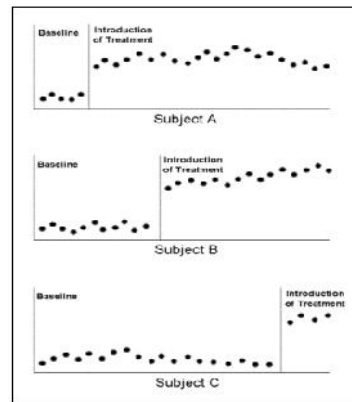 - Depression

Psychiatry

"Oh, wait! Wait, Cory! … Add the cereal *first* and *then* the milk!"

37

Design the Test

Single subject designs

- Behavioral
- Baseline
- Graphical
- AB; ABA; ABAB; ABAC, etc.
- Reversal
- Multiple Baseline
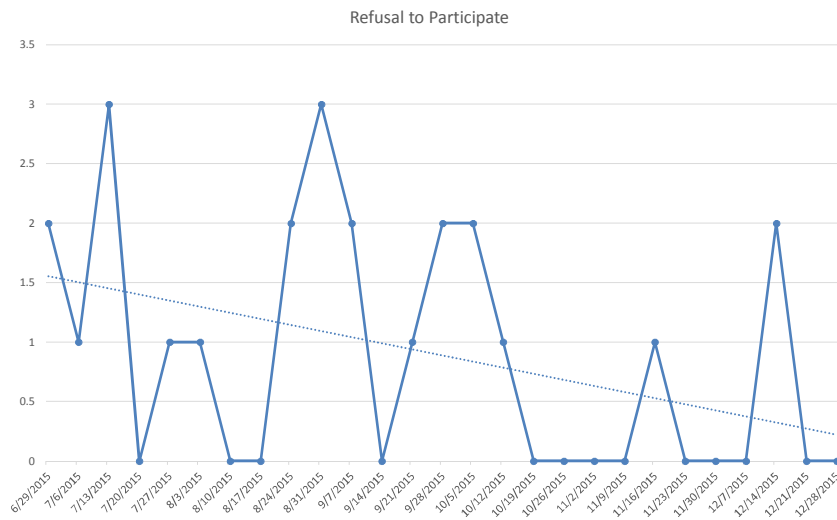 - Subjects, Settings, etc.

38

Decision Rules

- Significant Improvement
  - <.05 …. Not for Single Subject Designs
- In single subject designs, not as clear
  - Percent increase or decrease
  - Examination of graphs
  - Looks at trends
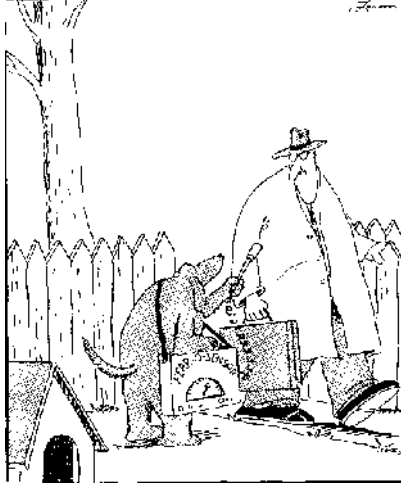- Early on, suggest shorter duration between data points (e.g., daily data).

39

Refusal to Participate

40

Collecting the Data

- Frequency
- Duration
- Severity
- Topography
- Latency
- Etc.
- Graphing
  - Allows trend analyses
- Make data based decisions (objective)

41

Descriptive Assessment

Data Cards

SHAPIRO CENTER
Baseline / Descriptive Recording Form (443-B)

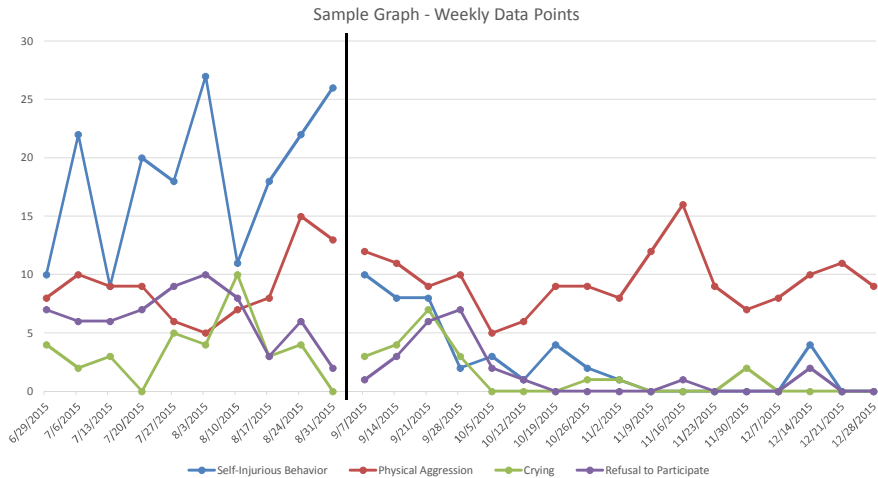Name: _____   ID#: _____   Living Area: _____   Day Program: _____

INSTRUCTIONS: For each occurrence of behavior, please indicate the behavior and what happened both before and after by placing a mark in the corresponding box. Example mark: ☒

				Location				What Happened Before?												Behavior?				What Happened After?													
Date	Start Time	Stop Time	Unit	Day Program	Outside	Community	Vehicle	Other	Physical discomfort/pain	Seizure	Loud/disruptive environment	Changing activities/location	Shift change	Meal time	Asked to engage in training	Asked to do scheduled activity	Asked to stop activity	Inappropriate behavior interrupted	Could not get desired item	Received corrective feedback	Sitting quietly	Other	Behavior 1	Behavior 2	Behavior 3	Behavior 4	Other	Ignore	Discomfort relieved	Victim yelled/reacted	Staff stopped request	Given a break	Told to stop	Redirected	Restore environment/apologize	Blocked	Problem solving	Deviated schedule	NETO (planned / emergency)	ETO (planned / emergency)	Restraint (planned / emergency)	Other	Staff Initials

42

Evaluating the Results

Sample Graph - Weekly Data Points

Legend: Self-Injurious Behavior · Physical Aggression · Crying · Refusal to Participate

43

Alternate Strategies - Samples

- Map program
- Poker Chips
- The "Wheel of Reward"
- "Identify Therapy"

Others??????

44

For More Information

Christopher S. Baglio, Ed.D., M.S.
Director of Program Development
Liberty Healthcare Corporation
(317) 677-6631
cbaglio@libertyhealth.com

"Mr. Osborne, may I be excused? My brain is full."