Self-Regulation, Stress Reduction, and Positive Psychology

The Bridge to Successful Inclusion

IACC Services Workshop
Enhancing Supports for People with Autism and Their Families:
Community Integration and the Changing Delivery System

September 15, 2011
June Groden, Ph.D.
The Groden Center, Inc., Providence, RI
Groden Center Network
Service Components

Four Corporations

1. Groden Center, Inc.
   • Day Treatment and School
   • Parent programs
   • Academics
   • Respite
   • Community Outreach
   • Residential
     ◆ Group homes
     ◆ Foster family
     ◆ Supportive living
     ◆ Independent living

2. Kingston Hill Academy, Inc. - Charter School
Groden Center Network
Service Components

3. Cove, Inc. (Rhode Island – Adult)
4. Halcyon, Inc. (Massachusetts – Adult)

Day Programs
- Vocational Training
- Assessment
- Community Placement
- Support
  Job Coach
  Natural Supports
Enterprises – examples:
- The Ladle
- Window Washing
- Business Center
- Greenhouse and related plant services
- Recycling
Residential
One of our interests from the beginning of our program was to focus on programs that promote self-control in the individuals we support. We’ve become well known for our work in developing relaxation, picture rehearsal, and other imagery-based and scripted programs.

This philosophy of positive programming has now been extended to include topics under the rubric of positive psychology.

1. Stress reduction and self-regulation
2. Positive psychology

Our population: Autism and other pervasive developmental disabilities with severe and challenging behaviors
Stress Reduction & Self-Regulation

The most overlooked problem in the population with autism spectrum disorder and developmental disabilities is stress and anxiety.
Stress Definition

The physiological reaction of the body to life situations which can be both happy events or unhappy events. For example: Divorce, Death, Marriage, Promotion; both Painful experiences and Pleasurable (eustress) experiences can create stress. However, recent research has been reasonably consistent in showing that the association with psychiatric illness is usually confined to unpleasant or undesirable events.

Hans Selye

Demand placed on the individual that disturbs homeostasis and requires an adjustment on the part of the individual.

Joseph Cautela
Characteristics of Autism Related to Stress

- **Communication**: inability to express feelings, handle frustrations, take other’s perspective
- **Socialization**: ambiguous cues, rules, gestures, and solitary life
- **Sensory**: visual, auditory, tactile
- **Physical Factors**: seizures, infections
- **Executive Function**: lack of this goal-directed, future-oriented cognitive ability affects planning, organization, flexibility, self-monitoring, inhibition
- **Hardiness**: lack of accepting challenge, having commitment and control
Multi-Modal Assessment

Functional assessment
  Direct observation

Scales and interviews

Physiological measures
# Functional Assessment

**Understanding Challenging Behavior**

## Detailed Behavior Report (DBR)

<table>
<thead>
<tr>
<th>CLIENT</th>
<th>John</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAFF</td>
<td>Lisa</td>
</tr>
<tr>
<td>PROGRAM</td>
<td>Adolescent 2</td>
</tr>
<tr>
<td>HOW RECORDED</td>
<td>Continuous/Sample</td>
</tr>
</tbody>
</table>

### Purpose:
This form is used to record objective information regarding the target behavior, its antecedents and its consequences.

### Target Behavior (Describe in detail)

<table>
<thead>
<tr>
<th>Severity Rating</th>
<th>5 (severe)</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1 (mild)</th>
</tr>
</thead>
</table>

Aggression: hit Bob Roberts (staff) fairly strongly on the chest with both fists and was about to hit him again.

<table>
<thead>
<tr>
<th>Precursors-body state, thoughts, emotions, verbals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tense - stiffened body; tight lips</td>
</tr>
</tbody>
</table>

### Schedule

<table>
<thead>
<tr>
<th>DATE</th>
<th>3/14/92</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAY</td>
<td>Saturday</td>
</tr>
<tr>
<td>TIME</td>
<td>4:00 p.m.</td>
</tr>
</tbody>
</table>

### Location

Residence living room, in front of TV, on couch

### Activity

Type: Watching TV - favorite game show

Length engaged: 30 min.

Mastered: Yes

Choice: Yes/No

Movement: High/Low

Relevancy to client: High/Low
Scales and Interviews

THE STRESS SURVEY SCHEDULE FOR PERSONS WITH AUTISM AND DEVELOPMENTAL DISABILITIES
The Groden Center, Inc.


Please rate the intensity of the stress reaction to the following events by filling in the appropriate circle:

1. Receiving a present .......................... 1  2  3  4  5
2. Having personal objects or materials out of order ................... 1  2  3  4  5
3. Waiting to talk about desired topic .................................. 1  2  3  4  5
4. Having a change in schedule or plans ................................. 1  2  3  4  5
5. Being in the vicinity of noise or disruption by others .................. 1  2  3  4  5
6. Waiting for preferred events ............................................. 1  2  3  4  5
7. Having a cold .............................................. 1  2  3  4  5
8. Being touched ............................................. 1  2  3  4  5
9. Having personal objects or materials missing .......................... 1  2  3  4  5
10. Having a change in task to a new task with new directions .......... 1  2  3  4  5
## Stress Survey Components

<table>
<thead>
<tr>
<th>Component 1</th>
<th>Component 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ritual Related Stress</td>
<td>Pleasant Events</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component 2</th>
<th>Component 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social/Environmental Interactions</td>
<td>Anticipation/Uncertainty</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component 3</th>
<th>Component 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Related Activity</td>
<td>Changes and Social Threats</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Component 4</th>
<th>Component 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sensory/Personal Contact</td>
<td>Unpleasant Events</td>
</tr>
</tbody>
</table>
Physiological Measure
Why Study Heart Rate?

- There are a number of observable stress-indicators, including breathing rate, blood pressure, heart rate, and hormones.
- Heart rate seems to be the best stress indicator for individuals with autism--most robust measure of arousal.
- It gives us another measure of stress:
  - Overt Behavior
  - Covert Psychological Behavior
  - Covert Physiological Responding
- Objective measure--due to communication deficits
- More precise, non-invasive, well-tolerated instrumentation
Heart Rate Results


<table>
<thead>
<tr>
<th>Subject</th>
<th>Order</th>
<th>Baseline Heart Rate M</th>
<th>Baseline Heart Rate SD</th>
<th>Physical Exertion</th>
<th>Unstructured Time</th>
<th>Receiving Tangible Reinforcement</th>
<th>Change in Staff</th>
<th>Losing at a Game</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>1</td>
<td>111.9</td>
<td>3.7</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P2</td>
<td>3</td>
<td>107.0</td>
<td>3.3</td>
<td>✓</td>
<td>*</td>
<td></td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>P3</td>
<td>2</td>
<td>81.3</td>
<td>4.4</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>P4</td>
<td>3</td>
<td>80.9</td>
<td>6.1</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P5</td>
<td>2</td>
<td>80.2</td>
<td>4.8</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P6</td>
<td>1</td>
<td>84.6</td>
<td>4.3</td>
<td>✓</td>
<td></td>
<td></td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>P7</td>
<td>2</td>
<td>81.7</td>
<td>4.0</td>
<td>✓</td>
<td></td>
<td></td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>P8</td>
<td>1</td>
<td>80.5</td>
<td>3.7</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P9</td>
<td>3</td>
<td>78.3</td>
<td>5.8</td>
<td>✓</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P10</td>
<td>2</td>
<td>68.1</td>
<td>2.7</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>

✓ Heart rate during this task was significantly greater than heart rate at baseline.

* Heart rate during this task was significantly less than heart rate at baseline.
Average Mean Heart Rate Level by Phase for ASD and Typical Group

COPING STRATEGIES
Relaxation

By deliberately tensing and relaxing their muscles, children and adults learn to discriminate the presence of muscle tension. They are taught to perform a relaxation response whenever their muscles tense or before, during, or after a stressful event. Relaxation enables the individual to remain in control in stressful situations and is incompatible with most maladaptive behaviors.
VIDEO
Picture Rehearsal

Definition:
A procedure in which the clinician verbally presents a carefully developed script, accompanied by pictures. The learner uses the pictures as cues to repeat the scene in daily rehearsals.

Target population:
- children
- people with special needs
- people who report difficulty forming mental images
- people with obsessive thoughts that interfere with more abstract imagery-based procedures
VIDEO
Stress Prevention Pyramid

PREVENTION of maladaptive responses to stress, facilitating the promotion of good behavioral and physical health

Development and implementation of PROACTIVE COPING STRATEGIES
Used before stress occurs. Examples are relaxation, picture rehearsal, assertion and environmental changes.

IDENTIFICATION OF STRESSORS
Antecedents or precursors to stress. Examples from the Stress Survey are: changes, anticipation, being told no.

MULTIMODAL STRESS ASSESSMENTS
Which include: observations (e.g., DBR), pencil and paper tests, interviews (e.g., Stress Survey Schedule), and physiological measures (e.g., heart rate)
Applying Positive Psychology to Autism
Definition of Positive Psychology

Positive psychology is: “an umbrella term for the study of positive emotions, positive character traits, and enabling institutions.”
Seligman, Steen, Park, & Peterson (2005)

Positive psychology begins to: “catalyze a change in the focus of psychology from preoccupation only with repairing the worst things in life to also building positive qualities.”
Seligman & Csikszentmihalyi (2000)

Many positive psychology traits relate to prevention, as they serve to buffer the damaging effects of experience, personal challenges, and mental illness.
Fostering positive psychology in special needs populations

Well-being; increased autonomy, independence, adaptability, and enhanced values

Community Impact → Home Impact → Personal Impact

Fostering positive strengths: humor, self-efficacy, resilience, optimism, kindness

Changing attributions and beliefs, reviewing desired behavioral sequences, changing ideas about self and the world around you, working on values
Resilience in Autism
Resilience Definition

Ann Masten defines resilience as:
“The process of, capacity for, or outcome of, successful adaptation despite challenging or threatening circumstances”

(Masten, Best and Garmezy 1990)
Resilience Definition

Brooks and Goldstein (2002), in their book on *Raising Resilient Children*, offer this definition: Resilience is the capacity to cope and feel competent. The resilient child deals more effectively with stress and pressure, responds effectively to challenges, “bounces back” from adversity and trauma, and develops clear and realistic goals. This child would also deal better with social situations and enjoy more social acceptance.
Important Steps in Increasing Resilience in Individuals with Autism

Stairway to Resilience

- Attribution
- Flexibility
- Self-Control
- Optimism
- Problem Solving
- Skill Building
- RESILIENCE
Important Steps in Increasing Resilience in Individuals with Autism

ATTRIBUTION

Interpretations of situations, and how we interpret our experiences. Our goal is to change negative attributions and provide positive attributions which would build Resilience.
Using Self-Control

For persons with autism and other developmental disabilities, it is not enough to learn self-controlling responses to reduce stress. Learning to *use* self-controlling responses in various life contexts is necessary to effective coping (Lazarus, 1993).
Use Relaxation

• Identify stressors

• Incorporate relaxation into IEP
  ❖ Teacher-cued – reinforce the relaxation response
  ❖ Self-cue – reinforce the relaxation response
Important Steps in Increasing Resilience in Individuals with Autism

PROBLEM SOLVING

Creating Opportunities for Resilience

Problem solving is a mental process that involves discovering, analyzing and solving problems. The ultimate goal of problem solving is to overcome obstacles and find a solution that best resolves the issue (Reed, 2000).
Important Steps in Increasing Resilience in Individuals with Autism

PROBLEM SOLVING

Consists of:

- Flexibility
- Reflection on emotions and behaviors
- Ability to try different solutions
- Social thinking; effect on others
- Choice making
- Understanding and expressing likes and dislikes
- Healthy expectations
- Goal directed
- Hardiness – having commitment, taking challenges and being in control
Activities to promote resilience
Activities to Increase Resilience

• Focusing on
  ❖ Attribution
  ❖ Flexibility/Choices
  ❖ Self-Control
  ❖ Problem-Solving
  ❖ Skill Building/Islands of Competence
Attribution

1. I am in the classroom.

2. My teacher asks me to do something new that I have not done before.
I say “Sure” and do a good job learning the new activity. Now I imagine . . .

3. I take a deep breath and relax. I know I can handle it. Trying new things is a great idea.
Anticipation Using Flexibility, Self-Control And Attribution

1. I am finishing up my reading program.

2. It is time to line up for gym.
Anticipation Using Flexibility, Self-Control And Attribution

3. I get in line. I don’t have to be first.
   (FLEXIBILITY)

4. I wait patiently and then walk with relaxed hands to the gym.
   (SELF-CONTROL)
Anticipation Using Flexibility, Self-Control And Attribution

5. I am happy to be at the gym. What fun. (ATTRIBUTION)

Problem Solving Activity

Choose an assignment or activity that the student cannot complete with asking for assistance. Examples of simple tasks are:

- Ask student to perform a writing assignment, but do not offer a pencil
- Offer a box of crayons that cannot be opened
- Serve food items without appropriate utensils
- Give student an empty jug to fill cups with water
- Ask student to retrieve an item from a locked cabinet
- Ask for an item from a shelf too high for student to reach
- Give student another student’s personal item “by mistake”
Learning About Preferences and Being Able to Communicate Likes and Dislikes (To Make Choices and Problem Solve)

<table>
<thead>
<tr>
<th>Category</th>
<th>Likes</th>
<th>Dislikes</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Leisure Time

Using the computer  |  Reading a book  |  Making a puzzle  |  Watching TV

Listening to music  |  Creating art project  |  Molding playdough
Chores

- Emptying dishwasher
- Sweeping
- Putting away towels
- Doing laundry
- Gardening
- Taking care of pets
- Grocery Shopping
Physical Activities

Swimming

Bicycling

Playground Activities

Gym Activities
Building An Island Of Competence

Build upon “islands of competence” (i.e., special interests). Identify and nurture special abilities and talents. “Islands of competence” are special abilities and talents that individuals with autism might have, even when facing difficulties in other areas of functioning. Build upon capabilities that can be appreciated by others.
My Own World
The Photography Project

An example of building ‘Islands of Competence’

Debra Romano
Gerren Martin
&
Students at The Groden Center

Tommy K. (adult)
My Own World Description

Students with autism are taught how to use digital cameras, computer printing processes, matting, framing and photographic display.
Brice L. age 17
Rebecca P., Age 13
Rhode Island Flower & Garden Show
Mayor Cicciline Presents Awards
Stairway to Resilience

- Skill Building
  - Islands of competence
    - Communication skills
- Problem Solving
- Optimism
- Positive scanning
- Self-Control
- Relaxation
- Picture Rehearsal
- Flexibility
- Choice – Resilience through Adaptation
- Attribution
- Cognitive restructuring
Resilience in Industry

- 48 agencies varying in size reduced $24 million 2011-2012
- The Cove Center was cut $350,000 two years ago; $744,000 in July 2011; and $830,000 as of Oct. 2011 which will bring this year’s reduction to $1.5 million
- Groden Center school programs
  - DCYF discontinued our $1 million contract which cancelled our Saturday program and our After School program. We are currently working to maintain the After School program
  - Children’s residential and foster family was cut $500,000
  - Other cuts in all our programs