

Strategies for working with individuals with autism spectrum disorders (ASD)



Ohio Center for Autism and Low Incidence

Bryan City Schools
October 13, 2008

Objectives

- Participants will gain knowledge of **characteristics/differences** specific to individuals with autism spectrum disorders (ASD).
- Participants will gain knowledge of **supports** for individuals with ASD designed to increase their success in both the general education and special education environments.
- To discover and review the necessary **educational and classroom components** for students with ASD within general and special education settings.

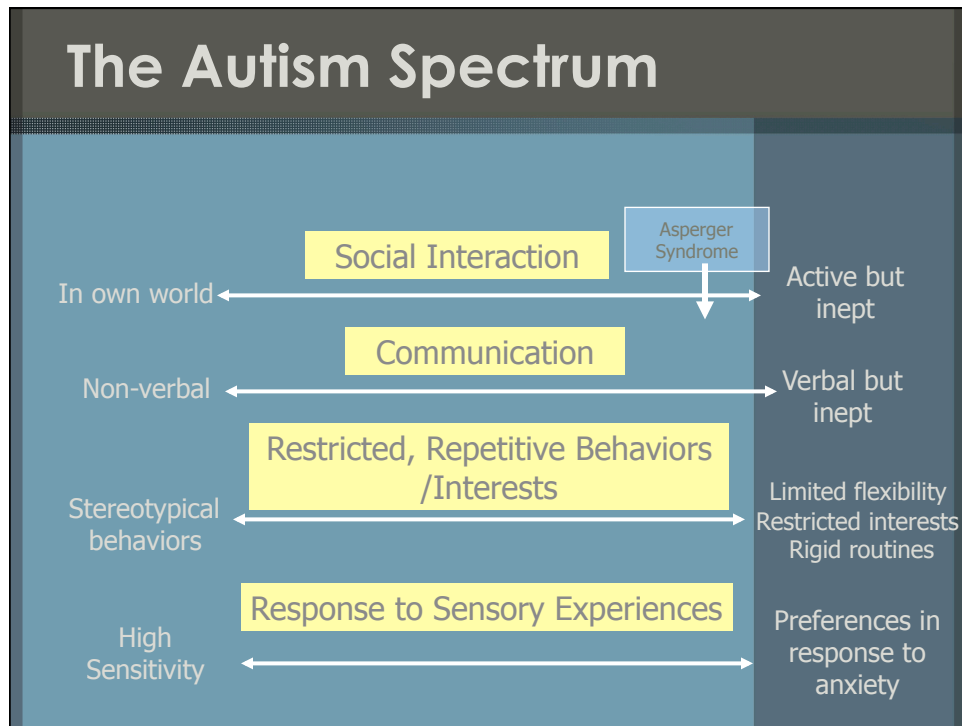


Autism Spectrum Disorders: Working Towards Success



While individuals on the autism spectrum have some similar characteristics, *no two individuals with autism spectrum disorders (ASD) will appear the same.*






Pervasive Developmental Disorders

- All individuals with PDD demonstrate:
 - An inability to relate typically to other people and situations
 - Delayed speech and language development, failure to use developed language for communication purposes, or other speech and language abnormalities, such as extreme literalness
 - Typical physical growth and development
 - An obsessive insistence on environmental sameness
 - An extreme fascination and preoccupation with objects
 - Stereotypic or repetitive behavior and other forms of self-stimulation
 - “Mind blindness”

Myles, B. S. (2005). Students with Autism Spectrum Disorders. *Special Education: Contemporary Perspectives for School Professionals* (pp. 449). Boston: Pearson Education, Inc.



Types of Pervasive Developmental Disorders

- Autism

- Display characteristics prior to 36 months of age
- Often accompanied by mental retardation (75%)
- Cognitive skills are often uneven (i.e., splinter skills, hyperlexia)
- Deficits in executive function (forward planning and cognitive flexibility)
- Fine and gross motor skill deficits

DSM-IV-TR



Types of Pervasive Developmental Disorders

- High-Functioning Autism

- Children who are autistic by definition yet are able to communicate.
- May not have overly severe social impairments.
- IQ ratings are near normal, normal, or even high

DSM-IV-TR



Types of Pervasive Developmental Disorders

- Asperger Syndrome (AS)
 - Normal language development
 - Very literal, speak beyond their maturity level, have difficulty with comprehension and abstract reasoning
 - Difficulty with social situations and unstructured time
 - Sensory difficulties
 - Motor functioning issues
 - Organization issues

Cooper, T. L. (2003). Unpublished Handout

Types of Pervasive Developmental Disorders

- Pervasive Developmental Disorder – Not Otherwise Specified (PDD-NOS)
 - Individual does not meet the criteria for only one specific diagnosis

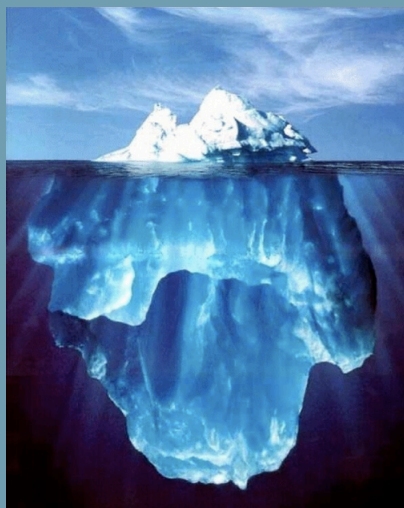
DSM-IV-TR

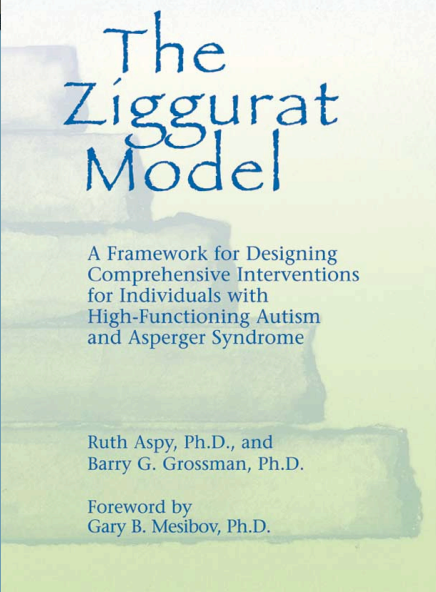


Adults with ASD




Underlying Characteristics







- Sensory and Biological Needs
- Reinforcement
- Structure and Visual/Tactile Supports
- Task Demands
- Skills to Teach



Characteristics

- Social
- Restricted Patterns of Behavior, Interests, and Activities
- Communication
- Sensory Differences
- Cognitive Differences
- Motor Differences
- Emotional Vulnerability
- Known Medical or other Biological Factors



Characteristics of ASD



The Big Bang Theory - pilot

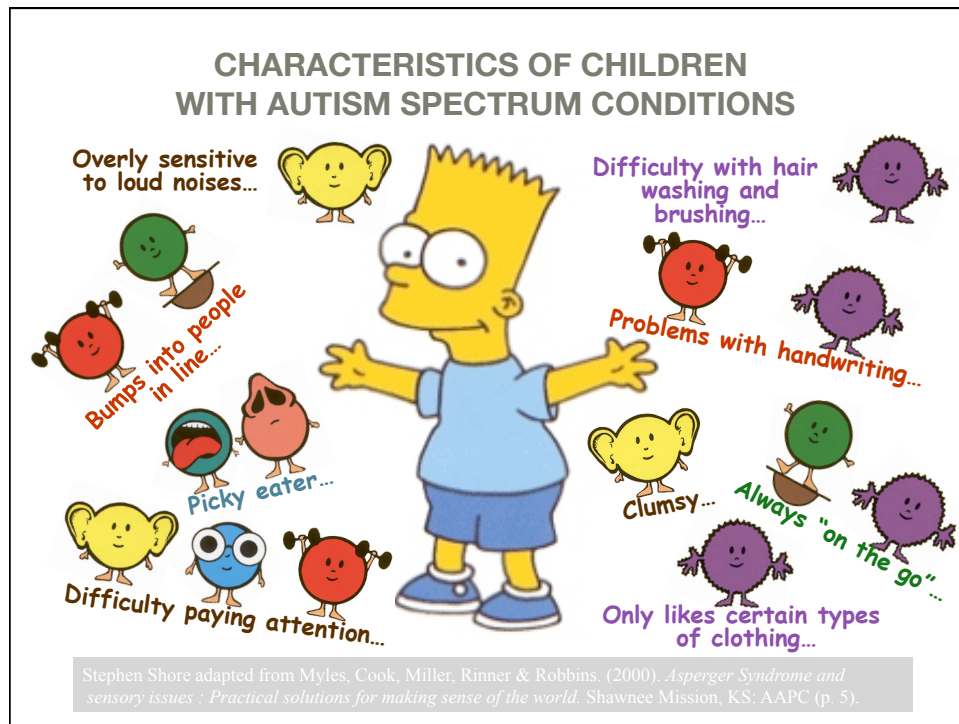


Characteristics of ASD



The Big Bang Theory – The Dumpling Paradox





Basic Challenges in the General Education Environment

- Different academic levels
- Taxes executive functioning
- Larger class size
- Less supervision
- Transitions
- Directions
- Social Issues
- Communication issues (directions, interpretations)
- Less individualized instruction

Characteristics - Impact on Success in School

- Cognition
 - Maturity
 - Rote Memory
 - Theory of Mind Deficits
 - Executive Functioning
 - Problem Solving Skills
 - Generalization
 - Special Interests



Characteristics - Impact on Success in School

- Language and Socialization Issues
 - Lack of a communication system.
 - Lack of interest in socialization.
 - Lack of understanding that nonverbal cues such as facial expressions, gestures, proximity, and eye contact convey meaning and attitudes.
 - Difficulty using language to initiate or maintain a conversation.



Language and Socialization continued

- A tendency to interpret words or phrases concretely.
- Difficulty realizing that other people's perspective in conversations must be considered.
- Failure to understand the unstated rules of the hidden curriculum or the set of rules that everyone knows, that have not been directly taught.
- Lack of awareness that what you say to a person in one conversation may impact how they interact with you in the future.



Characteristics - Impact on Success in School

- Sensory Awareness
 - The ability (or inability) of the student's sensory system to utilize the sensory information collected through the seven sensory systems. Teaching the student to become aware of their sensory needs helps them self-regulate.



Sensory Issues

- Smell
- Taste
- Touch
- Visual Input
- Auditory
- Vestibular
(balance)
- Proprioception
(body awareness)

Myles et al., 1999



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Characteristics - Impact on Success in School

- Behavior
 - Communicative Intent
 - Teach Expectations
 - Anxiety and Stress
 - Depression
 - Distractibility and Inattention
 - External and Internal Tantrums
Rage and Meltdowns

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Prioritizing Items



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Translating Research to Practice

- **Effective Strategies** that assist individuals with ASD in the school setting.
 - Student Strengths
 - Structure and Communication, Sensory, and Behavioral Supports
 - Academic Supports
 - The Hidden Curriculum and other Social Supports

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How to provide success? ASK ME

- **A**ccepting – need to understand the characteristics of the individual
- **S**tructured – activities and environment (schedules, labeling)
- **K**ind & Supportive – staff, peers, family
- **M**otivating – enjoyable tasks or working for a preferred activity
- **E**nriching – love to learn

Ask Me about Asperger's Syndrome (2005)



Consistency and Clear Communication of Expectations

- Communication of expectations is key.
- Teacher expectations must be translated into rules and routines that students understand.
- Often rules are posted, but expectations are inferred and vary from task to task.
- Individuals with AS have difficulty integrating the social, cognitive, and communication domains, so regulating for different expectations is difficult for them.

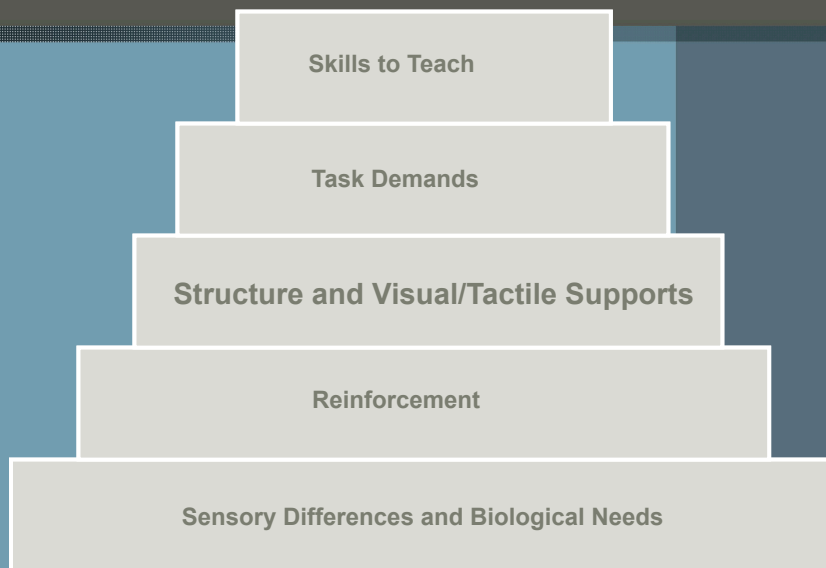
B. S. Myles, 2005

Important Skills for Everyone

- The image each student projects impacts how teachers and others perceive them and interact with them. Richard Lavoie (1994) has outlined several characteristics that should be taught to all students in every classroom because they are held in high esteem by adults and peers.
 - Smiling and laughing
 - Greeting others
 - Extending invitations
 - Conversing
 - Sharing
 - Giving compliments
 - Good appearance

B. S. Myles, 2005

Intervention Ziggurat



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Sensory Strategies



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How Long Does Sensory Input Last ?

SENSORY SYSTEM	LENGTH OF TIME
Tactile	1 to 1 1/2 hours
Vestibular	4 to 8 hours
Proprioceptive	Up to 1 1/2 hours
Auditory, Gustatory, and Olfactory	Transitory

Brack, 2006

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Sensory Diet Is ...

- A planned and scheduled activity program designed to meet a child's specific sensory needs (Yack et al., 1998)
- Incorporates naturally occurring opportunities for children to get the sensory stimulation they need (Willbarger, 1995)

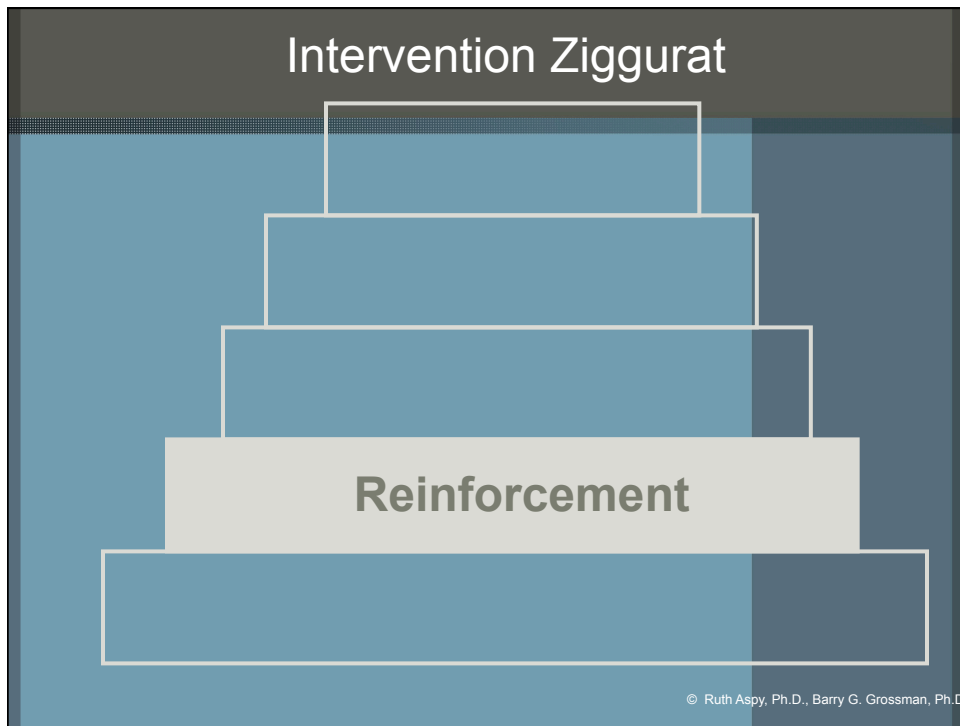
Miller & Robbins, 2005



Functional Sensory Diet Activities

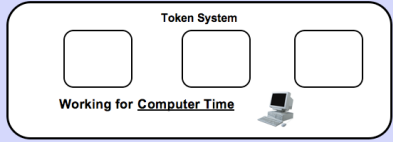



- Load/unload chairs
- Deliver materials
- Set up equipment for PE, assembly, etc ...
- Carry weighted book bag
- Wear spandex clothing under clothes
- Push grocery/library cart
- Rake, shovel, dig, vacuum
- Pull wagon
- Push wheelchair
- Crush cans
- Sharpen pencils
- ... and many more ... designed by an occupational therapist






Types of Reinforcement

- Natural reinforcers
- Social reinforcers
- Activity reinforcers
- Tangible reinforcers
- Token reinforcement





Token Reinforcement

- Involves awarding points or tokens for appropriate behavior
- Points/tokens are exchanged for something of value (preferred item) at a later time
- Tokens (stickers, coins, smiley faces) can be reinforcing in and of themselves



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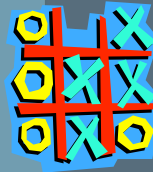
Example

- Scenario: Chris is in 7th grade and diagnosed with autism. Team would like him to begin attending P.E. class. Will start with swimming rotation.
- Reinforcement:
 - **Activity reinforcement:** Chris loves to swim!
 - **Social reinforcement:** Schedule Chris in class with peers that are familiar with his needs and with whom he enjoys spending time.
 - **Tangible reinforcement:** Chris receives a swimming pass to swim during a study hall.
 - **Token reinforcement:** Chris receives token for each time that he follows swimming rules.

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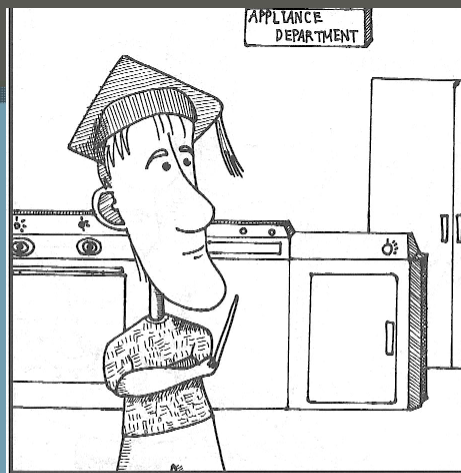
Choosing Reinforcers

- Make sure that the reinforcer is valued, preferred, and tailored to the child
- Remember, what may be reinforcing to one child may not be to another



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Special Interests



I like to visit the appliance department. Washers and dryers are my favorite and I think I know more about them than any kid in the world. I also check out the appliances in every house I visit, and I love to talk about appliances. It's a fascinating topic but no one ever wants to listen to me talk about them for very long. I don't understand why everyone isn't interested in appliances.
This is Asperger Syndrome.

Gagnon, E., & Myles, B. S. (1999). *This is asperger syndrome*. Shawnee Mission, KS: AAPC.

Star Wars Episode 0

By

An eighth grader who happens to have
Asperger Syndrome

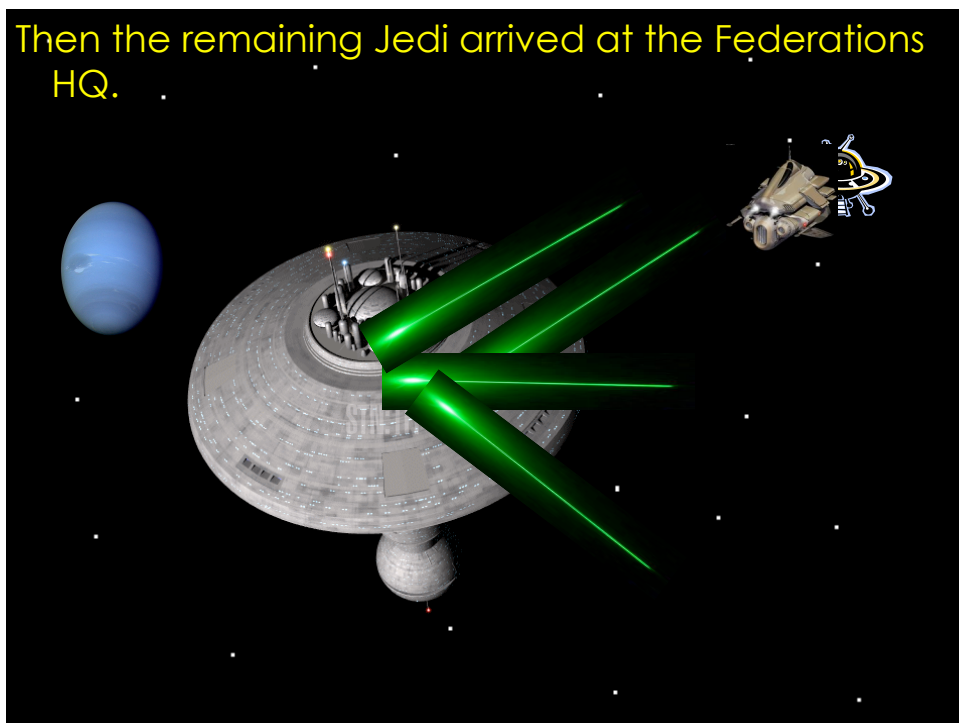
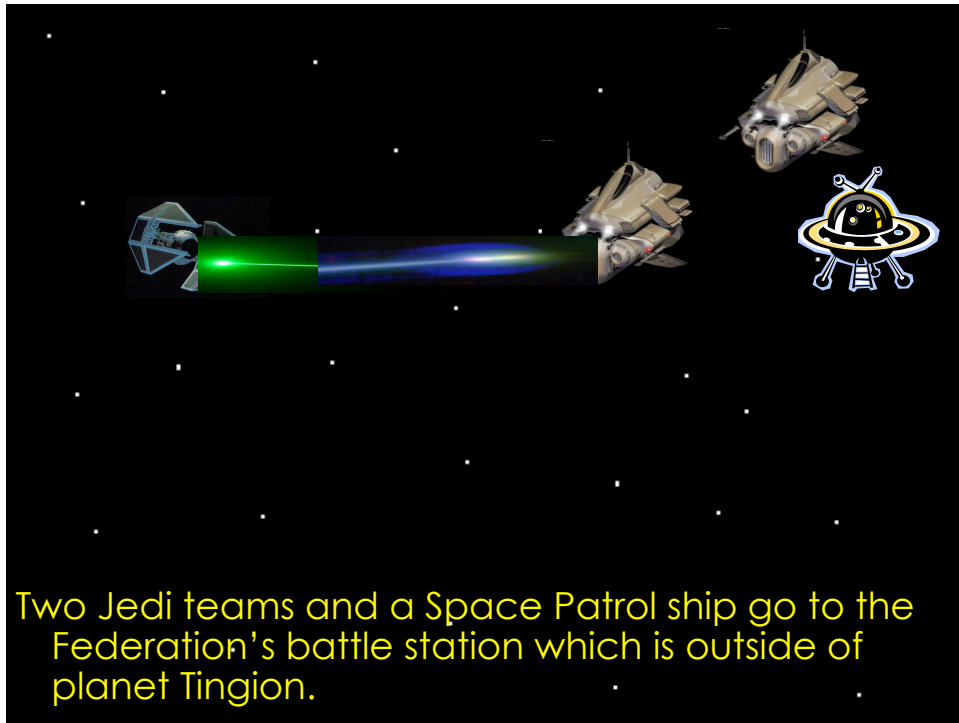
Episode 0.

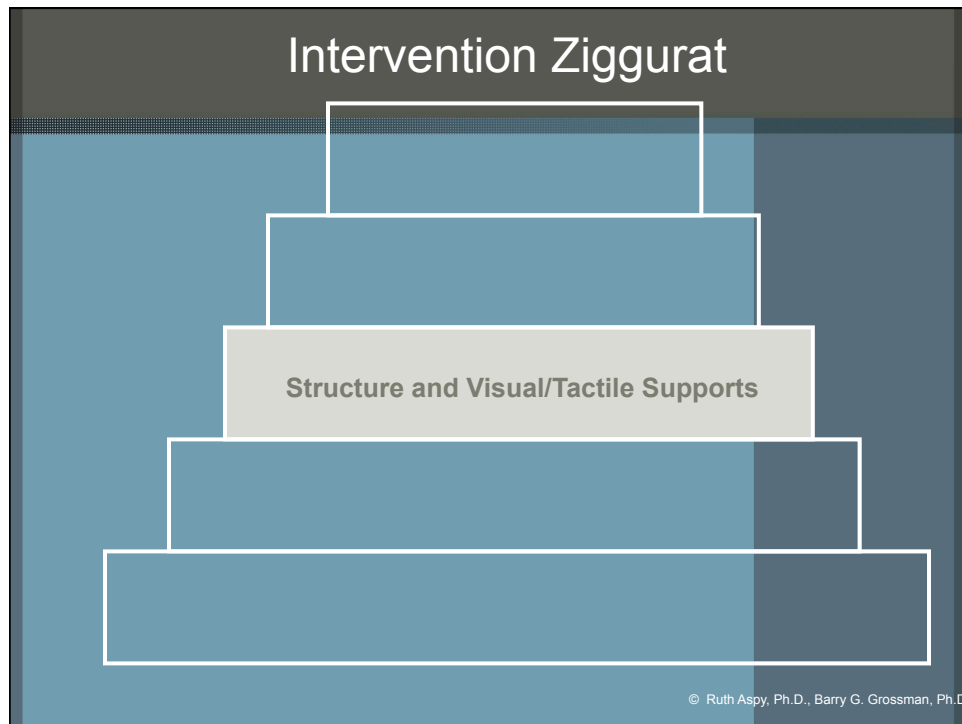
Parting of the Peace

The peace has parted in the galaxy. The evil Imperial Trade Federation has been taking control over the small planet of Tingion.

The Jedi council, keepers of the peace, have had many Jedi wounded by the Federation in attempts to end the problems.

The council has planned to send teams of Jedi to stop the Federation. But the question is, will they succeed?...





Common Misconceptions

- If an individual can read then she does not need pictures or symbols
- He's in high school, he does not need an individualized schedule
- I can stop using a visual schedule once my student learns the routine
- If a student has not looked at her schedule in three weeks she does not need it anymore

Visual Supports

- Visual schedules are effective in decreasing
 - Off-task behaviors
 - Disruptive behavior
 - Noncompliance
 - Aggression
 - Tantrums
 - Property destruction



Visual Supports



Clopton & Hill, 2005





Structured Settings

- Include clearly defined areas for each activity
- Include visual reminders of classroom expectations
- Provide adequate spacing to allow for personal space preferences
- Provide organization of materials (color coding, labeling)
- Provide a home base – quiet place where student with AS can go to plan or review information or to cope with stress and behavioral changes.

B. S. Myles, 2005

Structured Settings

- How do Structured Settings Relate to the Characteristics of individuals with ASD
 - Provide predictability through boundaries
 - Clutter is reduced, reducing the anxiety for the individual
 - Provide visual organization –specific place for things
 - Allow for fewer visual distractions

Swanson & Schelvan (In Press).



Structured Setting Examples

- | | |
|---|---|
| <p><u>Individual Areas</u></p> <ul style="list-style-type: none"> • Desk/Workspace • Locker • Backpack • Notebook | <p><u>Meals</u></p> <ul style="list-style-type: none"> • Snack table • Cafeteria |
| <p><u>Leisure</u></p> <ul style="list-style-type: none"> • Classroom Play Area • Recess • Study hall | <p><u>Shared Space</u></p> <ul style="list-style-type: none"> • Small group table/activity • Classroom • Hallway |

Swanson & Schelvan (In Press).



Teaching Rules and Routines

- Explain why it is important
- State objective – what we'll learn today and how we will do it
- Explain the steps
- Model them
- Walk the students through them one step at a time
- Have them practice with feedback from you
- Independent practice



General Strategies for Successful Daily Transitions

- Easily understood and concrete choices
 - a visual choice board of readily available choices for break/reinforcement
- Clearly defined expectations
 - As students begin to change classes in middle school, provide them with a list of each teacher's rules
- Extra processing time
- Concrete instructions (less verbal, more visual)
 - Directing journal writing with questioning techniques

Schelvan, Swanson & Smith (2005).

Easing Transitions

- Pictures of follow-up activities
- Schedules
- Use of first____, then____
- Natural clues to next activities
- Warnings with a timer
- Verbal Warnings

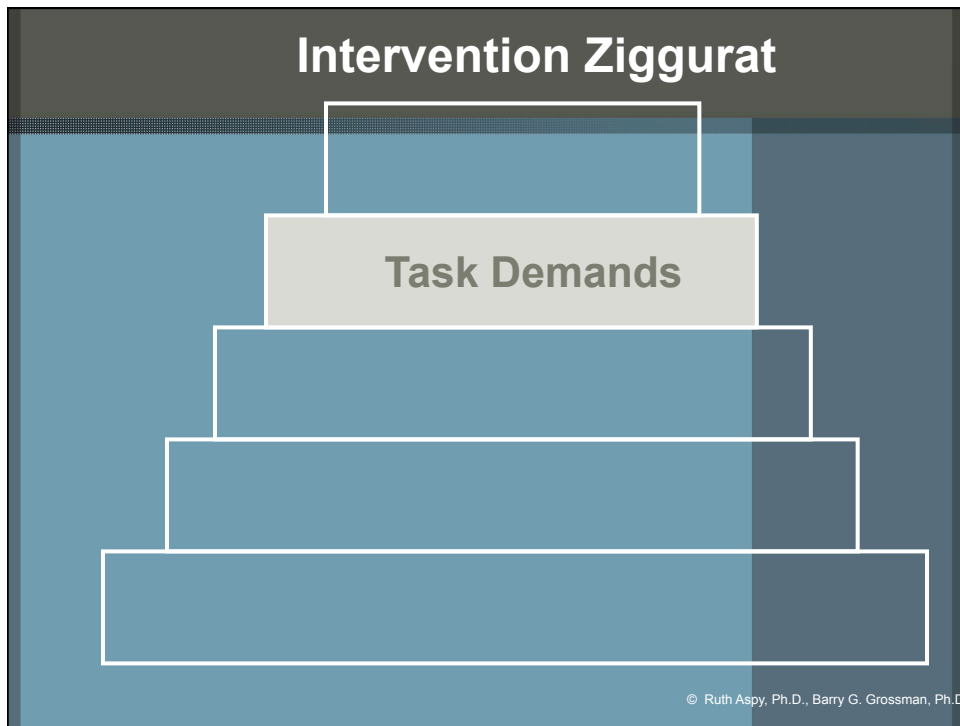


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Students spend 1/2 of
the school day in
listening activities





Everything Needs to Be Adapted

“Almost everything we think, do, say, and plan needs to be adapted.”

- Gill, 2003, p. 200

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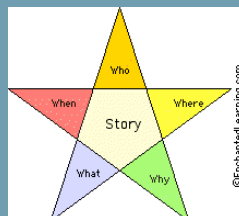
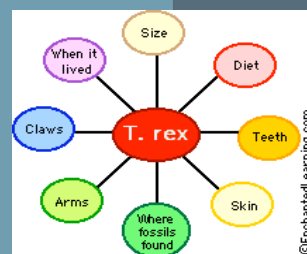
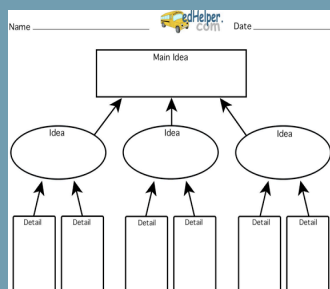
Task Demands – Three Questions

- Are you asking for performance of a skill that is too hard?
- Are you asking for performance of a skill that has not been taught?
- Are you asking for a task to be accomplished without the necessary supports?

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Graphic Organizers



Word Banks

Julia is in the 3rd grade and is having difficulty writing a paragraph about dolphins. She uses a word bank to help her generate ideas.

There are more than 45 different _____ of dolphins. They can be found on all _____. Dolphins are very _____ animals and can be easily _____. They eat over 22 pounds of food daily.

land
water
coasts
quiet
species
social
lost
trained
hungry



Cognitive Strategies

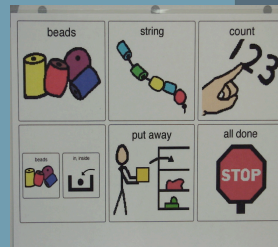
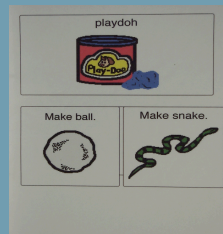
Name _____

Date _____

Directions: Use your calculator to solve the following addition problems.

1. $\begin{array}{r} 234 \\ +145 \\ \hline \end{array}$	2. $\begin{array}{r} 146 \\ +743 \\ \hline \end{array}$	3. $\begin{array}{r} 689 \\ +568 \\ \hline \end{array}$
4. $\begin{array}{r} 676 \\ +345 \\ \hline \end{array}$	5. $\begin{array}{r} 908 \\ +687 \\ \hline \end{array}$	6. $\begin{array}{r} 345 \\ +999 \\ \hline \end{array}$
7. $\begin{array}{r} 123 \\ +678 \\ \hline \end{array}$	8. $\begin{array}{r} 345 \\ +567 \\ \hline \end{array}$	9. $\begin{array}{r} 566 \\ +790 \\ \hline \end{array}$

Visual Directions



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Accommodations and Modifications within the General Education Setting

- Priming
- Class schedule
- Note taking
- Handwriting
- Assignment
- Graphic organizers
- Enrichment
- Homework

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Priming

- Preparing the student for daily activities
 - Can occur
 - At home for the next day
 - The morning of in school
 - At the end of the school day for the next day
- Overview of schedule changes, assignments and activities



- The student cannot show his best work with a pencil in his hand!

- Handwriting will often not improve with time!



Handwriting Modifications

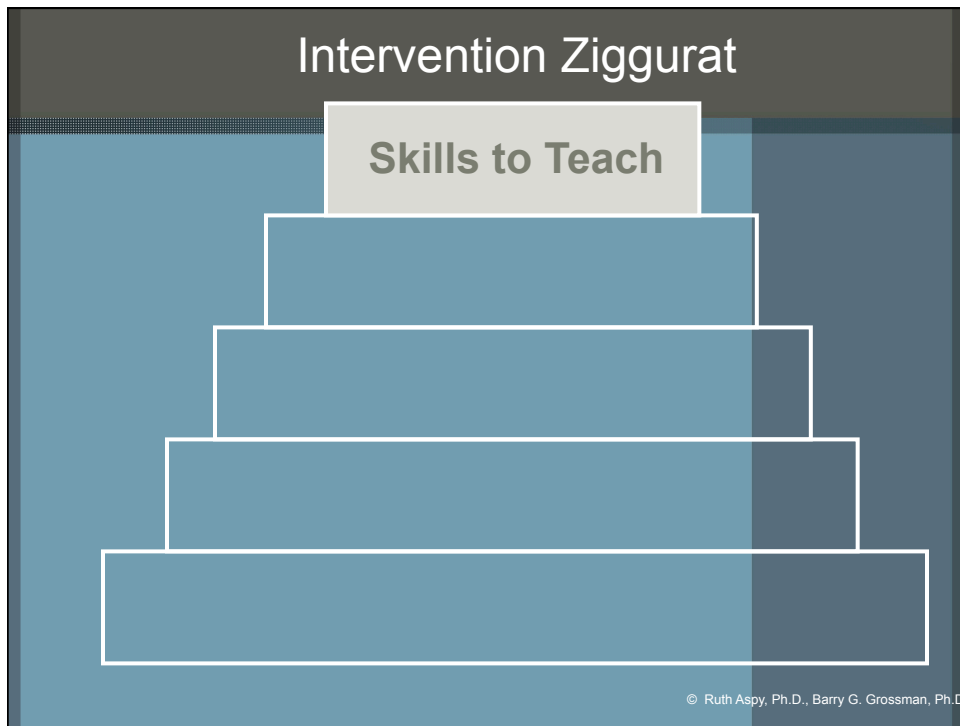
- Allow the student to underline or highlight answers to questions in a text instead of writing them out
- Allow the student to use a PDA, laptop, or computer to respond to questions
- Provide a scribe if necessary
- Investigate instructional and assistive technology solutions



Homework

- Identify purpose of homework
- Identify the **amount of time** the student must spend on homework
- Recognize that homework is a family activity
 - And that some families **CANNOT** do homework
- Provide enough specificity so that parents understand the assignment solely from the written information



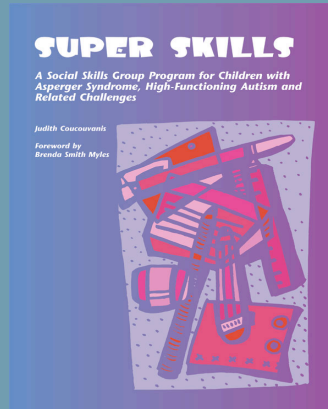
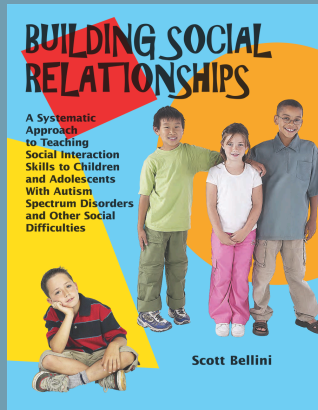


Social Skills

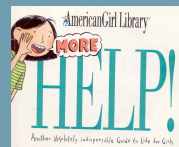
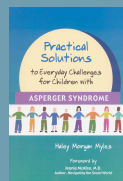
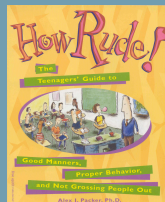
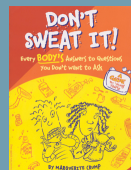
- Direct instruction using a curriculum
- Circle of Friends/Lunch Bunch
- Social Narratives
 - Social Stories™
 - Power Cards
 - Social Scripts
- Hidden Curriculum

OCALI

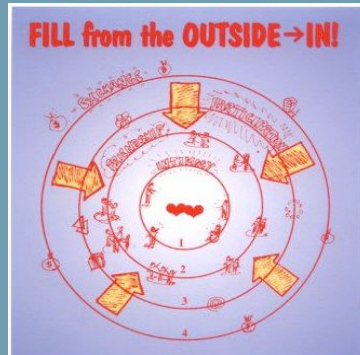
Controlled Exercises: Traditional



Controlled Exercises: Nontraditional



Circle of Friends



Circle of Support (Friends)

First Circle: INTIMACY
 Second Circle: FRIENDSHIP
 Third Circle: PARTICIPATION
 Fourth Circle: EXCHANGE

©1997 Forest, Snow & Pearpoint, Inclusion Press

Falvey, M. A., Forest, M., Pearpoint, J., & Rosenberg, R. L. (1997). *All my life's a circle*. Ontario, Canada: Inclusion Press.

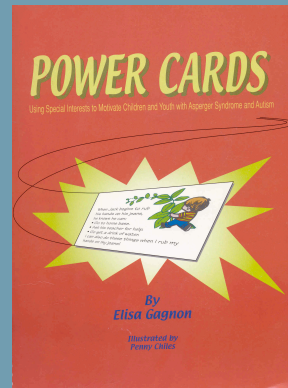
Social Stories™

- Short stories that describe social situations in terms of relevant social cues and often define appropriate responses.
- They are a visual cue that explain situations and allow for student reflection.

Carol Gray

Power Cards:
Using Special Interests
to Motivate Children
and Youth with
Asperger Syndrome
and Autism

by Elisa Gagnon



Nancy

- Nancy demonstrated behaviors that her general and special education peers considered inappropriate when she was placed in *any* competitive situation
- Interest: The Powerpuff Girls

- Games should be fun for everyone.
- If you win a game you can: smile, give a high five, or say, “Yea!”
- If you lose a game you can take a deep breath, say, “Good job!” to the winner, or say, “Maybe next time”.



Scripts

- Provides verbatim or near verbatim structure
- Uses child/adolescent-friendly language
- Targets one social situation
 - Increases predictability
 - Decreases stress

Adaptive Behaviors

- Problem Solving
 - SOCCSS
 - SODA
 - Cartooning

- Self Regulation
 - The Incredible 5-Point Scale
 - When My Worries Get Too Big
 - The Way to A
 - My Book Full of Feelings



Situations-Options-Consequences-Choices-Strategies-Simulation

Situation <i>John</i> <i>Friday</i>	
Who <i>John</i>	When <i>Friday</i>
What <i>Wants to copy on test</i>	Why <i>He doesn't study;</i>
<i>He doesn't want to try to do well</i>	

Options	Consequences	Choice
<i>Let him copy</i>	<i>Get caught and get an F</i>	<i>No</i>
<i>Tell him "no"</i>	<i>Get beat up</i>	<i>No</i>
<i>Hover over your paper</i>	<i>Get beat up</i>	<i>No</i>
<i>Tell the teacher</i>	<i>No copying; no F</i>	<i>Yes</i>

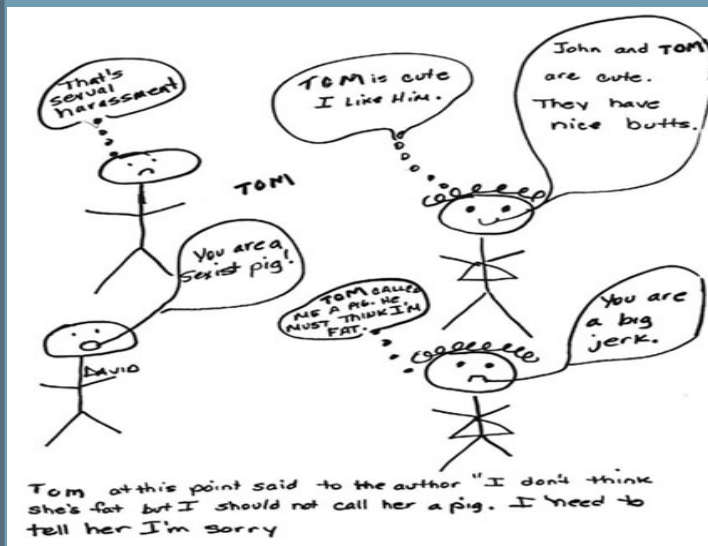
Strategy - Plan of Action <i>Tell the teacher at recess when no one is around</i>	Simulation/Follow-up <i>Role play with student until comfortable. Follow-up.</i>
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SODA

- Stop
- Observe
- Deliberate
- Act

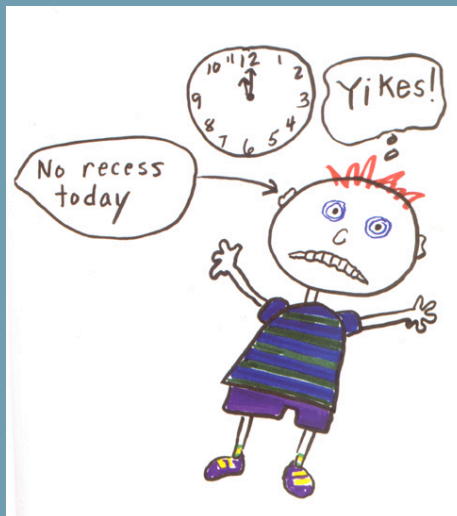
Bock, 2001

Cartooning



	<u>Looks Like</u>	<u>Feels Like</u>	<u>I Can Try To</u>
5	Kicking or hitting	My head will probably explode	Call mom to leave
4	Screaming, almost hitting	Nervous	See Mr. Peterson
3	Quiet, rude talk	Bad mood, grumpy	Stay away from kids
2	Regular kid	Good	Enjoy it
1	Playing	A million bucks	Stay that way

Sometimes I worry way to much, like when I think I am going to recess and it gets cancelled.



This might make me scream, or even hit someone. This is a 5. Now my autism is TOO BIG.

Buron, 2004



What is the Hidden Curriculum?

- An unwritten set of rules or guidelines.
- These social rules are never directly taught either in the school or home environments.
- These rules can pertain to social interactions, expected routines, hygiene issues, safety issues, and a variety of things that just cannot be put into a category.

Hidden Curriculum



The Big Bang Theory – The Big Bran Hypothesis



How can we determine what items are Hidden Curriculum items?

- If you are tempted to say the following you are probably dealing with a Hidden Curriculum item:
 - I shouldn't have to tell you this, but...
 - It should be obvious that...
 - Everyone knows that...
 - Common sense tells us...

Hidden Curriculum

- Differs across
 - Age
 - Gender
 - Depending who you are with
 - Cultures

Body Language is part of the Hidden Curriculum

- Leaning your head to one side may mean that you are thinking, not hearing well enough, or possibly not understanding what the speaker is saying.
- Making a scowl might indicate that you are not happy, angry, expressing displeasure, or trying to intimidate someone.
- The corners of your mouth are usually lifted upward if you are happy or even greeting someone.

Shevlin & Myles, 1999

Impact of the Hidden Curriculum

- School
 - How to dress
 - What type of backpack to carry
 - What games are acceptable to play
 - Teacher expectations
 - What to do when the bell rings
 - Physical plan of the building
 - Bathroom rules
- Home
 - Values and rules of the individual family
- Community
 - Library etiquette of age 5 vs. age 15
 - What to do when you like a girl age 5 vs. age 15
- Workplace
 - What does casual dress mean?
 - Do you go out to lunch or bring your lunch?
 - Is there someone at work who should be avoided?
- Legal System
 - Do not confess to a crime that you did not commit

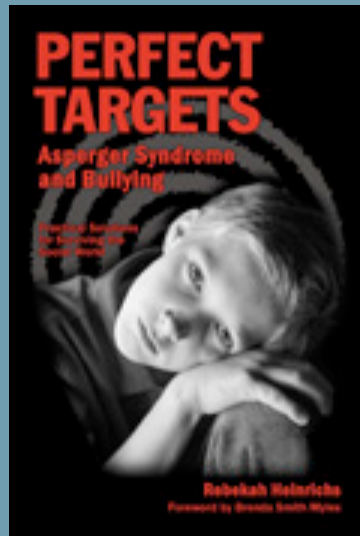
Shevlan & Myles, 1999

Hidden Curriculum Areas

- Birthday Parties
 - Do not ask to be invited to a birthday party.
 - Only the birthday person can blow out the candles.
- Clothing
 - It is inappropriate to take your clothes off in public even if you are hot.
- Eating
 - Always chew with your mouth closed.
 - Burping loudly is not appropriate when you are eating.
- Friendships
 - You do not have to pay someone to be your friend.

Shevlan & Myles, 1999

Bullying

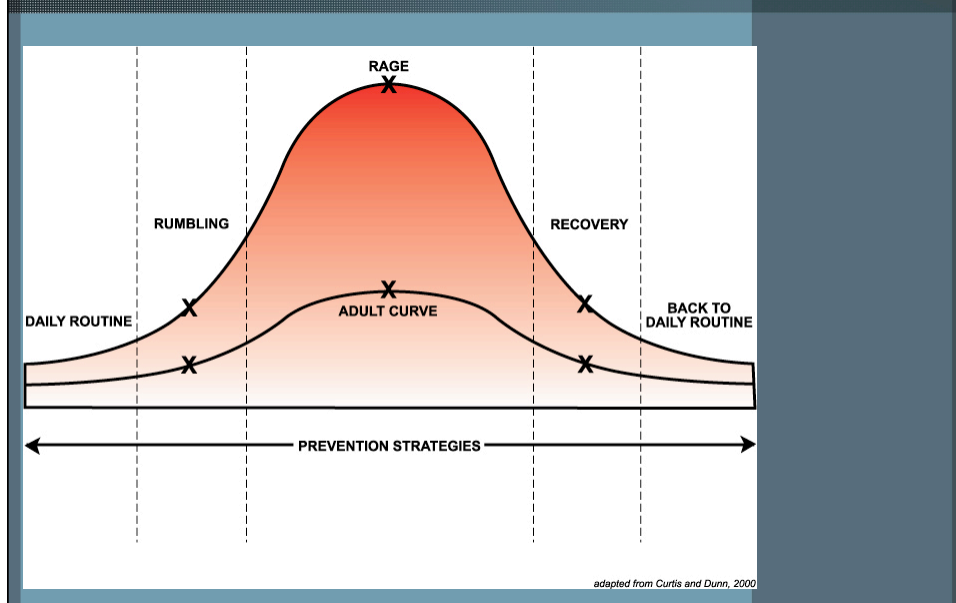


The Rage Cycle

- Rumbling
- Rage
- Recovery

Brenda Smith Myles

Rage Cycle



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Thank you.



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