Evidence-based Practices for Autistic Individuals

BRENDA SMITH MYLES

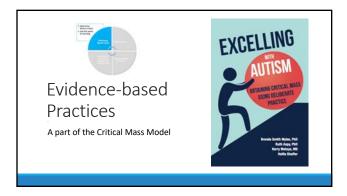
CMS		NPDC
(0-16)	(3-5) (6-9) (10-14)	(0-5) (6-14)
(0-16)	(0-2) (3-5) (6-9) (10- 14)	(0-5) (6-14) Differential reinforcement, extinction, reinforcement
		(0-5) (6-14)
		Discrete trial training
		(0-5) (6-14)
		Time delay
(0-16)		(6-14)
(0-16)	(0-2) (3-5) (6-9)	
	(0-16) (0-16)	(0-16) (3-5) (6-9) (10-14) (0-16) (0-2) (3-5) (6-9) (10- 14)

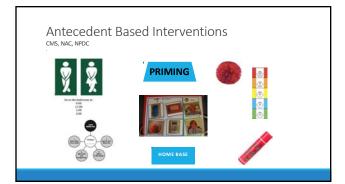
EBP	CMS	NAC	NPDC
Exercise			(0-5) (6-14)
Functional Behavior Assessment			(0-5) (6-14)
Functional Communication Training			(0-5) (6-14)
Joint Attention Intervention	(0-16)	(0-2) (3-5)	
Modeling	(0-16)	(3-5) (6-9) (10-14)	(0-5) (6-14) Video modeling
Multi-component Package	(0-16)		

EBP	CMS	NAC	NPDC
Naturalistic Teaching Strategies	(0-16)	(0-2) (3-5) (6-9)	(0-5) (6-14)
Parent-implemented Interventions			(0-5) (6-14)
Peer-implemented Interventions	(0-16)	Peer Training Package (3-5) (6-9) (10-14)	(0-5) (6-14)
Picture Exchange Communication System	(0-16)		(0-5) (6-14)
Pivotal Response Training	(0-16)	(3-5) (6-9)	(0-5) (6-14)
Response Interruption and Redirection			(0-5) (6-14)

EBP	CMS	NAC	NPDC
Schedules/	(0-16)	(3-5) (6-9) (10-14)	(0-5) (6-14)
Visual Supports	Schedules	Schedules	
Self-management	(0-16)	(3-5) (6-9) (10-14)	(0-5) (6-14)
Social Interventions	(0-16)		(0-5) (6-14)
	Social Communication Intervention		Social Skills Training
	(0-16)		(0-5) (6-14)
	Social Skills Package		Structured Play Group
Social Narratives	(0-16)	(6-9) (10-14)	(0-5) (6-14)
	Story-based Intervention Package	Story-based Intervention Package	
Structured Teaching	(0-16)		

EBP	CMS	NAC	NPDC
Task Analysis	(0-16)	(0-5)	(6-14)
Technology-based Treatment	(0-16)		(6-14) nology-aided instruction and intervention



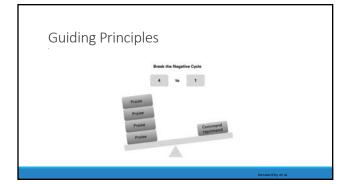


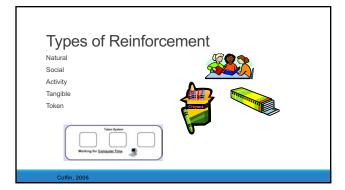
Behavioral Approach

Behavioral Package (CMS, NAC, NPDC)
Reinforcement/differential reinforcement
Extinction
Discrete trial training
Time delay
Response interruption redirection
Naturalistic teaching strategies

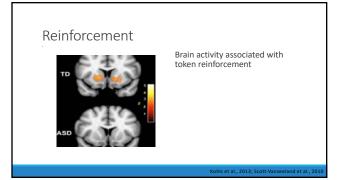
Reinforcement

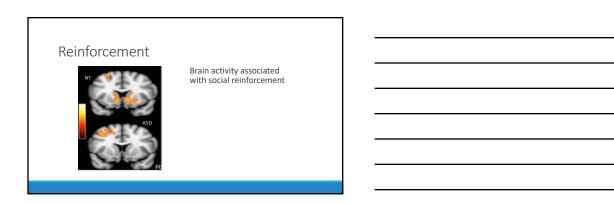
An item, activity, or event that **follows**, and is contingent upon, a behavior and which **increases** the likelihood of that behavior being repeated





Reinforcement	Reward center in the brain: mesocorticolimbic or mesolimbic system	- - -
	Kohls et al., 2013; Scott-Vanzeeland et al., 2010	_





The most powerful reinforcers are related to special interest areas (SIA)

USE OF THESE AS REINFORCERS DOES NOT INCREASE THE INTENSITY OF THEIR USE OR FOCUS!

Special Interests

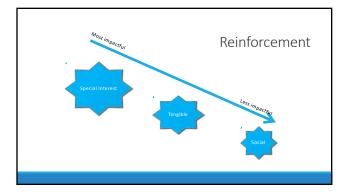


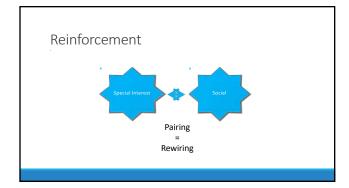
Use Special Interests



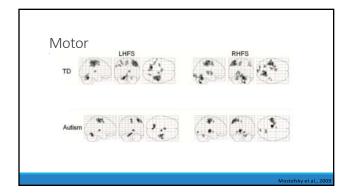
"Your child's special interest ... [is] ... the perfect reward"

Sakai, 2005











Video Modeling

TYPES

•Video self-modeling •Peer

EXAMPLES

- Commercial
- Model Me Kinds
- VideoJugManners for the Real World
- YouTube
- eHowMansome
- Home made

Multi-component	Package
CMC	_

These interventions involve a combination of multiple treatment procedures that are derived from different fields of interest or different theoretical orientations. These treatments do not better fit one of the other treatment "packages" in this list nor are they associated with specific treatment programs.

Parent-implemented Interventions



Peer-implemented Interventions CMS, NAC, NPDC



This generally does not "just happen."

nteractions	
Peer Group's Experience	Child with Disability's Experience
From Poors	rer Less Social Motivation/ Interest
	ss Social More Frustration

Research shows that from a very early age, children prefer to interact with those who are socially competent Research shows that from a very early age, children prefer to interact with those who are socially competent

. WHAT DOES THIS MEAN FOR THE CHILD, ADOLESCENT OR ADULT WITH AUTISM SPECTRUM DISORDER?





Train the Peers



Number of People The fewer people involved, the lower	
the social challenge	

Types of People

PEOPLE WHO ARE EASY TO SOCIALIZE WITH

Speak slowly Listen carefully Articulate well Are entertaining and fun (without mocking)

Are reinforcing

Express themselves directly Communicate feelings

Types of People

PEOPLE WHO ARE EASY TO SOCIALIZE WITH

Who genuinely like the child Who send clear messages of support Who minimize figurative

language or explain it



Self-Manag cms, nac ndpc	,		
The photo is his request?	New Autom Media	_	Social Behavior and Self-Management
	= 111	0.00	5 Poor State for Addiscuss and Adults
134	- 111	0.00	No. of the last of
	Special Street, etc.	444	
<u> </u>	-	000	
	new Nation	000	

Regulation Challenges

Over 50% experience self-regulation challenges

Difficulties

- Recognizing emotions in self
- Difficulty matching emotions to events
- ° Staying calm or calming down when upset or overwhelmed

Self-Regulation - Underactivity

The yellow areas represent a composite of fMRI scans showing the areas of the prefrontal cortexes that are significantly less active in people with autism during emotion regulation.

Richey et al., 2015

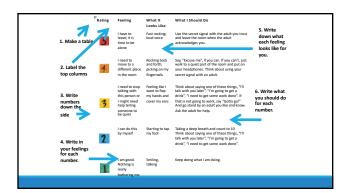
Reactive Not Proactive

Not planned in advance

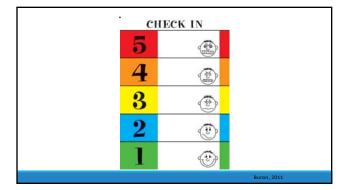
Occurs because the individual does not have the skills to problem solve, recognize feelings in self, match feelings to event, and calm self

The Incredible 5-Point Scale

BURON & CURTIS

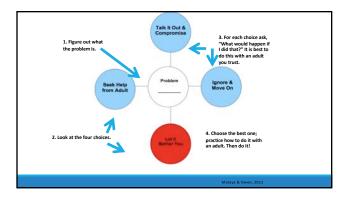


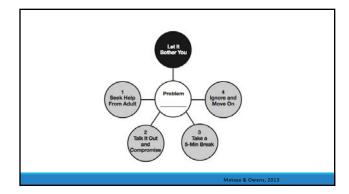
Rating	How It Feels and What I Can Do
5	OUT OF CONTROL! I need to spend time in a safe place to calm my nerves Listen to Adele on headphones.
4	Very upset or angry. I will stay in the resource room for a while and work through my nervous feelings with Mrs. Wilson.
3	Not very good. I am not feeling well today. I did not get much sleep or maybe I had a bad bus ride. I need to do some relaxation exercises to help.
2	OK. I can go back to class and continue my day. I can practice my positive self talk to keep me calm.
1	Good day. I am having a good day. I feel calm and focused. Good to go to class



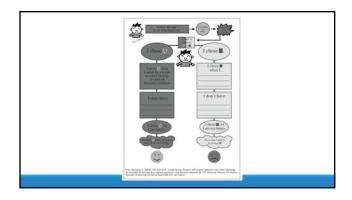
The best problem solving rubric ever!

MATAYA & OWENS





The	Way	to	Α
MANASCO			



CMS, NAC	
Der Genet Wit Lindow, ist ist infillier	

Social Interventions

CMS, NPD

Social communication intervention

Social skills package

Social skills training

Structured play groups



Whole Brain Structure Differences: Areas of the Social/Communication Brain



Social Skills Opportunities

Occur regularly in the learner's life Facilitate successful interactions with peers Create a chance to practice social skills Are enjoyable for the learner on the spectrum

Social Opportunities

AT HOME

Family meals

Visits with relatives

Sibling interactions

Play dates

Overnights/slumber parties





Social Opportunities

IN THE COMMUNITY

Neighborhood peer gatherings

Errands

Sports teams (statistician, score keeper)

Martial arts

Swimming

Music lessons

Church/synagogue youth fellowship and activities

Scouts

Social Opportunities

IN THE COMMUNITY

Neighborhood peer gatherings

Church/synagogue youth fellowship and activities

Sports teams (statistician, score keeper)

Scouts

Martial arts Swimming

Social Opportunities

AT SCHOOL

Lunch Hallway transitions Time at the locker Recess Study hall Extracurricular Specials: art, music, computer, tech ed, gym, class Dances Field trips Transitions



Middle and High School Study hall/specials Community-based clubs/teams Extracurricular clubs/teams Community-based clubs/teams

Successful Participation in Social Activities

GUIDELINES

Meeting the social demands of a Assessment is subjective

Fitting in

Following the important social

ASSESSMENT

It is based in large part on how others react and is ultimately judged successful if the other person feels good about the interaction and is looking forward to future interactions

Social Skills Generalization

Applying learned skills in different settings and situations when

Generalization has been difficult to establish for so social skills interventions for children and adolescents with autism spectrum disorders

Deriving Joy From Social Interactions GENERAL ASD CHARACTERISTICS OF THAT RELATE TO SOCIAL INTERACTION CHALLENGES

Reduced motivation to socialize with peers

Preference for video games, scripted monologues, interactions with special interests

Focus on solitary activities; loneliness is not a major issue

Urge to play is often not strong

Deriving Joy From Social Interactions GENERAL ASD CHARACTERISTICS THAT RELATE TO SOCIAL INTERACTION CHALLENGES Processing social information, communicating with people, remembering written and unwritten social are difficult Attempts to socialize may alienate or offend others resulting in alienation, frustration, teasing, confusion, and rejection	
It is vital that adults create social activities that are worth the effort for learners on the spectrum	
Guidelines to Creating Social Activities Target whatever motivates the learner Ensure that social demands are not too high and don't require too much effort Use humor, games, fun activities Incorporate learner special interests, whenever possible Include people she likes	

Realize that you cannot control every social opportunity, but you can \dots

- Create social opportunities
- Adapt existing social situations so the child can be successful
- Mobilize the peer group to demonstrate better responses
- Change the attitudes of peers and adults

Guidelines to Creating Social Activities

Frame the activity in positive, enjoyable terms, rather than practice or work

Remember that for many individuals on the spectrum, social motivation grows in adolescence

There are too many social skills that evolve too quickly to provide a generalization plan for each, but with the right type and frequency of social opportunities, many social skills will generalize on their own

The Goal:

The learner is ... "fluent enough in social skills so that, as an adult, he will be able to choose the level of social activity he wants in life rather than being isolated and without the ability to socially connect with others is he so desires"

oomis, 2008, p. 11

How Adults	Drop	the	Ball	in	Socia	a
Situations						

Letting the learner fend for herself
Providing social activities that are too challenging
Providing social activities that are not challenging enough
Not providing enough social practice

The Child's Social Itinerary

A REASONABLE PLACE TO START

Social programming during part or all of lunch or recess three to four times a week

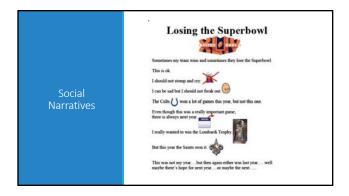
One social occasion with a peer outside of school every two weeks Participation in one school or community club or team

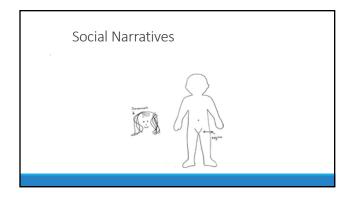
> Staying Gaine

The Child's Social Itinerary









	MY CHAING SEGUENCE	
When My Worries Get Too Big		
Kari Dunn Buron	This is when I read to fight back Sinci, I can tailer three ready slice, First, I can expense Sinci, I can tailer three ready slice, first, I can tailer three ready slice, I ca	
	Then I can six Journ, rulk my legs and discer by age, See I feet more like a 5 or a 2.	

The Power Card Strategy

A visual aid that incorporates student interests to teach appropriate behavior in social situations, routines, interactions, behavior expectations ...



Gagnon & Myles, 2016

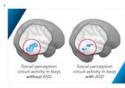
Components of the Strategy

- A short scenario describing how the hero solves a problem similar to the one experienced by the child (reader)
- The Power Card that recaps the strategy

The Purpose of the Hero

- The hero
- ... serves as a motivator
- ... is nonthreatening
- ... has a "relationship" with the individual (reader)

Social Perception

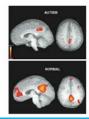


These brain scan images show social perception circuit slivity in boys with ASD and without ASD.

Björnsdotter et al., 1

Social/Communication

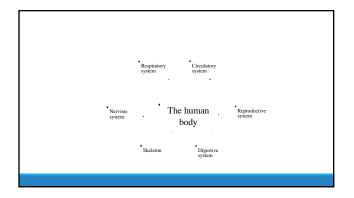
Individuals with ASD process faces using that same areas that typically process objects



Myles, 2019







		_
	TEST ANALYSIS FORM	
	CLASS:	
Tost Apalysis	DATE:	-
Test Analysis Form	GRADE:	
	WHY: □Forgot to study	· ·
	□Panic □Did not understand material	
	□Did not remember material □Studied alone □Studied vide of fixed	
	□Studied with a friend □Worked with the teacher □Used study hall for study	
	□Used a study guide □Other	
		_
		٦
	Civil War	
	Advantages Advantages	
	of the North of the South	
• Mo	ore people • More trained	
• Ha	ore supplies leaders d a navy • Fighting on	
• Mo	ore railroads home ground ore money • Army had better	-
	skills	
		7
	MUSIC	
•Go to	o locker	
	up green folder	
	o class	
• Find music	seat, put folder under chair and wait for to start singing	
	n for bell to be dismissed	
•Gath	ner materials for folder and leave	



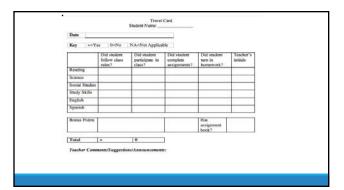
	Reinforcement Menu
Reinforcement Menu	Student Name: Check off 5 things you would like as rewards today: Stickers Coloring/Drawing
ivienu	Painting Extra Recess Good Note Home
	Candy
	Extra Gym Time Reading

Knowing What To Do	•
What am I expected to do?	
How much am I expected to do?	
How will I know when I am finished?	
What will I do next?	

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An intervention that is designed to facilitate the generalization of targeted skills across the student's many environments.

from the work of Laura Bowden Carpente



Technology-Based Treatment/Technology Aided instruction and Intervention CMS, NPDC

The struction and Intervention CMS, NPDC

The struction and Intervention CMS, NPDC

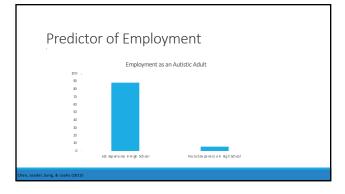
The struction and Intervention CMS, NPDC

Research-based Predictors for Post Secondary success

NATIONAL TECHNICAL ASSISTANCE CENTER ON TRANSITION

Paid employment/work experience

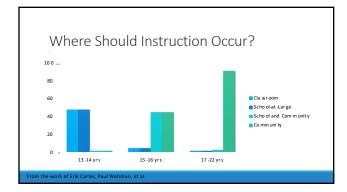
NTACT



Age: 13-14	Years 25% time	out of school
Goals	Sample Activities	Settings
Social	Understanding personal space	Learn and practice in the classroom
Communication	Small talk	Move to school at
Functional life skills	Eating neatly	large to generalize with supports
Academics	Functional reading and math	Community-based vocational instruction
Health and wellness	Hygiene and food choices	Job sharing

Age: 15-16 Ye	ears 50% time o	out of school	
Goals	• Standing in line at a store to	• School and community	
Communication	make a purchase Choice making Personal space	Summer job: 15-20 hours	
Functional life skills Academics	Making purchases with money Reading signs	Weekend job: 5 hours Part time work 8-10 hours per week	
Health and wellness	Speaking with a cashier Ordering pizza		
From the work of Erik Carter, Paul Wehman	ı, et al.		

Social Standing in line at a store to make a purchase Communication Communication Functional life skills Academics Making purchases with money Reading signs Speaking with a cashier Ordering pizza School and community Summer job: 15-20 hours Weekend job: 5 hours hours per week hours per week	Age: 17-21	Years 75-100%	time out of school
	Communication Functional life skills Academics	make a purchase Choice making Personal space Making purchases with money Reading signs Speaking with a cashier	Summer job: 15-20 hours Weekend job: 5 hours Part time work 8-10

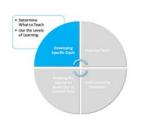


Inclusion	in	general
education	1	

NTACT

Essential instruction cannot be neglected however!

Teach skills that are implicitly learned by others



Implicit Learning

Learning without trying to do so

- "Just picking it up"
- "Automatically getting it"
- "I don't know how I learned it I just did"

Stay with me – I have a point

Schipul & Just, 2016

If we don't teach group instruction behaviors ...

Gets upset when his role is changed from time keeper to note taker. $% \label{eq:continuous}$

Cannot accept ideas other than his own.

Reports minor rules that other students have learned to ignore to the teacher. $\label{eq:controller}$

Takes over any responsibilities that he perceives other group members are not competent to do.

If we don't teach group instruction behaviors Becomes distressed if someone writes too firmly on his paper making a scraping noise. Cannot agree with group members in selecting a topic. Interrupts others without the awareness that someone else is talking. Cannot acknowledge that others have good ideas. Spends an inordinate amount of time on a minor detail, such as selecting a computer font for a report.	
Is it important to teach how to participate in a group?	
Most students learn this implicitly – our students do not.	

Other Skills to Teach (just a sample)

Central coherence Problem solving Prioritizing
Conflict resolution

Problem solving
Time management
Self-regulation

Emotional understanding

Self-regulation Executive function Collaboration Conversation Flexibility
Cause and effect
Asking for help
Daily living skills

Implicit Learning

SOCIAL INTERACTION

COMMUNICATION

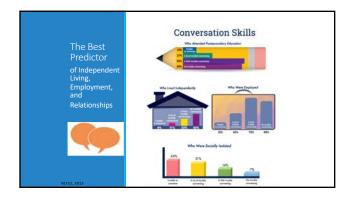






Occupational/ vocational courses

NTACT





Promising Predictors for Post
Secondary Success

NATIONAL TECHNICAL ASSISTANCE CENTER ON TRANSITION

Transition program
planning and
implementation

NTACT

Factors That Lead to Successful Employment

Consistent schedule and job responsibilities

Mentor

 $^{\circ}$ Coworkers who initiate interactions and help "keep an eye out" for the employee

Predictable social demands

System to keep track of work progress

Predictable routines for lunch, breaks, and other unstructured times

Factors That Lead to Successful Employment

Time before the day begins to organize self and tasks

Direct communication with opportunities for clarification and verification

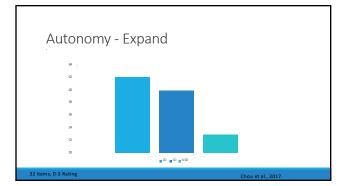
Reminders and assurances

If support providers are involved, a method to transfer these services and supports to mentor and fellow employees

(Dew & Alan, 2007; Hagner & Cooney, 2004; Hurlbutt & Chalmers, 2004

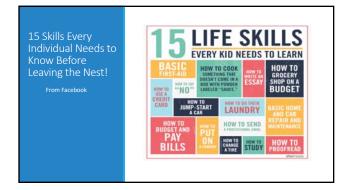
Self-determination/ autonomy

NTACT



Self-care/daily living skills

NTACT



The bubble list: 31 things my sons should be able to do before they move out

EMILY MENDELL 2/14/2104

The Bubble List

Write a check
Pay a bill
Make travel arrangements
Navigate an airport, train, or bus station

Take a taxi Catch the subway Plunge a toilet Check the oil
Shave with a razor
Withdraw from an ATM
Pay for dinner
Self-prescribe over the counter medications

Call a doctor Cook a meal Cancel a membership

The Bubble List

Buy clothes
Return a purchase
Pack a suitcase
Do the laundry
Iron a shirt
Go food shopping for themselves

Replace a fuse
Remove a splinter
Enjoy a drink responsibly
Say "no" with confidence
When hurting and in doubt, call home

Sew a button

Negotiate a deal

Make hospital corners

The Bubble List

Jump a car with cables
Address an envelope
Pay bills and rent on time
Do your tax returns
Clean up your own mess
Balance a check book

Create and follow a budget

Understand how to use credit cards and use them responsibly

Be able to spot a bad situation and be able to remove yourself

Ask for help

Admit when you made a mistake

Skills

Social & Personal Skills	Recreation & Leisure	Other Useful Skills
Can your child: Supply appropriate personal identification. Greet people appropriately. Use contemporary style of dress, hair, make-up. Use good grooming, hygiene skills consistently. "Talk" with friends and coworkers. Be responsible. Be responsible.	Can your child: Use free time for pleasure. Choose reasonable activities. Pick a hobby. Perform required activities. Use commanity resources. Call friends to make plans with them.	Can your child: Use cell phone. Use a darebook. Take prescriptions as directed Use over-the-counter medications appropriately. Use sunscreen when needed Use insect repellent when needed.

