

Positive Behavior Support Intensive Training – Day 5





Positive Behavior Support – Tier 1 / Universal Day 5



Minnesota Department of Human Services

Research and Training Center on Community Living Institute on Community Integration

University of Minnesota

Driven to Discover⁵⁵

Today's Agenda

- Building a support plan
 - -Supporting skill development identified in your Matrix
 - Revisiting context modification and antecedent strategies for your Matrix
- Instructional Strategies
- Reinforcement Strategies
- Developing instructional and reinforcement strategies in the context of three case studies
 - -Violet
 - -Abdi
 - -Emma

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Revisiting Context and Antecedent Supports

FOR YOUR MATRIX





Proactive Strategies – Improving Context







Quality of Life – other domain structures

- **Emotional well-being** contentment, self-concept, lack of stress
- Interpersonal relations interactions, relationships, supports
- Material well-being financial status, employment, housing
- **Personal development** education, personal competence, performance
- Physical well-being health and health care, activities of daily living, leisure
- Self-determination autonomy / personal control, personal goals, choices
- Social inclusion community integration and participation, roles, supports
- **Rights** legal, human (respect, dignity, equality)





Proactive Strategies – Antecedent Modifications

- Give positive attention
- Pre-specify a reinforcer
- Collaborate
- Make plans and clarify expectations via:
 - -Schedules
 - Lists
 - -Calendars
- Give concrete, affirmative answers to requests
- Offer choices instead of giving demands
- Use preferred items and activities as distracters
- Gradually fade-in demands and expectations







How have you thought about supporting your Matrix with context modifications and antecedent strategies?

Person- centered Values	Setting 1	Setting 2	Setting 3	Setting 4
Value 1				
Value 2				
Value 3				

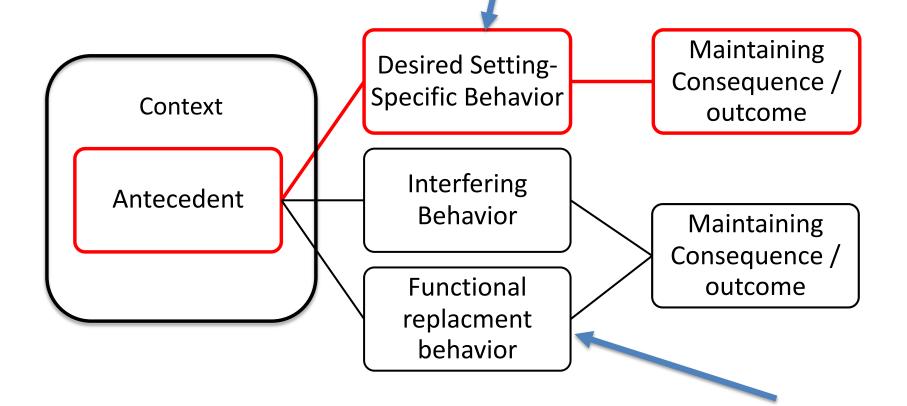


Building a PBS Plan INSTRUCTIONAL STRATEGIES





Teaching New Skills







Teaching New Skills – two different types

- Functional replacement behavior:
 - An alternative that serves the same function as challenging behavior
 - Be efficient (produce the reinforcer as quickly or quicker)
 - Be less effortful
 - Produce as good (or better) quality of reinforcement
- Desired setting-specific behavior:
 - What could the person learn to do in that setting...
 - ...consistent with their preferences for that setting
 - ...that could build their independence
 - ---that could connect them to positive outcomes, perhaps those noted in their person-centered profile or plan





Teaching New Skills - considerations

- Is the context optimized for learning?
- What antecedent strategies will you incorporate?
- How many learning trials will the person need (per day, week, etc) to learn the skills?
- Do you know what functional or other reinforcers to use, in order to strengthen the new skills?
- How will you correct errors, and respond to challenging behavior?
- How often will you review data to determine whether your approach is working or needs adjusting?





Chat about it!

- What was familiar to you about that last slide, in terms of your current practices?
 - What are you already doing to address formal treatment plan / CSSP-A goals?
 - What might you benefit from adding, or weaving together more systematically?



Functional Replacement Example:

Functional Communication Training







Steps for Teaching New Skills

- WRITE an operational definition of the behavior
- START with the initial cue that occurs naturally
- PROMPT the behavior (see choices in coming slides), using an intentional hierarchy
- REINFORCE immediately with specific praise or other options (see choices in coming slides)
- REPEAT with as many opportunities, in dedicated teaching and naturalistic scenarios, as needed for the person to <u>learn</u>, <u>master</u>, and <u>maintain</u> the skill



Starting the teaching opportunity

- What should cue the person to use the skill under naturalistic conditions?
 - Use this as the starting point
- Some examples
 - Empty plate = put dishes in the dishwasher
 - Person enters room = start a conversation
 - Phone alarm sounds = set out clean clothes and get shower items ready
 - Someone is watching TV = "when can it be my turn?"
 - Hearing someone say "no" or "not right now" = get calendars and ask to determine when it can happen





CHAT ABOUT IT!

 What examples can you provide – what natural cues have you been working to get people to respond to?



Prompting the skill

What is the purpose of prompting?

So the person can respond to the natural cue by doing the skill

We often forget about that first part!

— We can support a person to learn & do any skill, but if they don't learn it in response to the natural cue, then they will be "prompt dependent"

Considerations for prompting

- Age of the person
- Context in which we are supporting the person
- Fading prompts, building towards independence and spontaneity
- Starting with most- or least-intrusive prompts





Types of Prompts (see handout)

- Verbal = e.g., "Say help"
- **Gestural** = e.g., point to toothpaste
- Model = e.g., demonstrate how to put the toothpaste on the toothbrush
- Visual = e.g., task list with written steps to cross off or Velcro pictures to remove
- **Positional** = e.g., correct answer / item is physically arranged for success for the person
- Partial Physical Prompt = lightly touch hand to indicate toothbrush should move to other side of mouth
- Full Physical Prompt = place a hand over the person's hand and guide toothbrush to other side of mouth





Most-to-least intrusive prompt hierarchy

- Start with the least intrusive prompt that consistently results in a correct use of skill (this could be a full physical prompt)
- Across successful opportunities the prompt is faded
 - (remember to fade quickly)
- Need some criteria for when to move to a less restrictive prompts.

Benefits:

- More errorless learning (could lessen likelihood of frustration)
- May be good for harder/more complex/novel skills

Drawbacks:

- Can be harder to fade
- Lessen likelihood of spontaneity of new behavior





Least-to-most intrusive prompt hierarchy

- Use the least intrusive prompt first,
- Then progresses through the sequence of prompts until the person performs the skill
- Need criteria for when to advance in the hierarchy

Benefits:

- Increased likelihood of independence/spontaneity of the response
- Can be easier to fade

Drawbacks:

- The person may error before receiving prompt, which may increase frustration
- May lead to error pattern





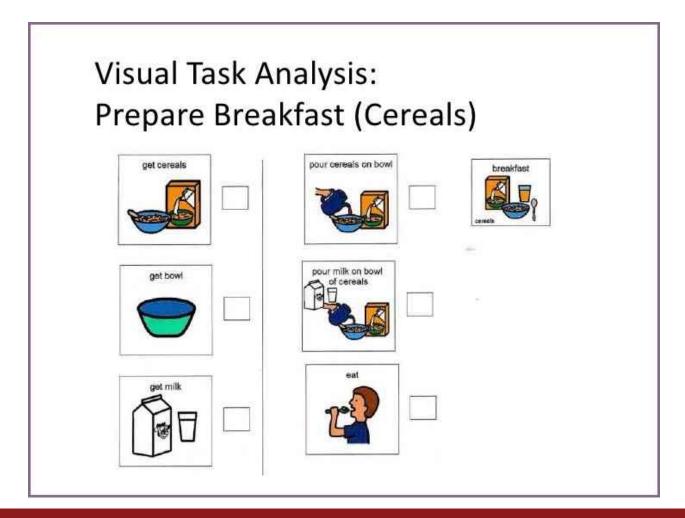
Task Analysis

- Breaking down larger tasks into smaller steps
- YOU break down the task, then assess person's ability to complete each step
- Match instructions and supports to the person's prerequisite skills
 - Identifying pictures, reading, sequencing steps, etc
 - This includes prompts what prompts will work best for the person?
- Be specific with naming of objects
- Quality control-have someone perform the task
- Use action verbs
 - Locate, Identify, Put, Place, Identify





Example Task Analysis







 Grab toothbrush Grab toothpaste Open toothpaste Put toothpaste on toothbrush Brush teeth Spit Rinse Put items away





Task Analysis for Brushing Teeth

(Pictures can be added for students that need additional visual supports)

- 1. Pick up the tooth brush
- 2. Wet the brush
- 3. Take the cap off the tube
- 4. Put paste on the brush
- 5. Brush bottom teeth on left side
- 6. Brush bottom teeth on right side
- 7. Brush bottom teeth in front
- 8. Brush top teeth on left side
- 9. Brush top teeth on right side
- Brush top teeth in front
- Brush tongue
- 12. Spit in sink
- Rinse brush
- Put brush in holder
- Get cup and fill with water
- 16. Rinse mouth and spit in sink
- Put cup away
- Put cap back on tube of toothpaste
- 19. Wipe face with towel if wet
- 20. Clean sink area with towel



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Step 1: Find vending machine room
Step 2: Identify soda vending machines (SVMs) in vending machine room
Step 3: Search SVM 1 for desired soda brand (X)
Step 4: Search SVM 2 for desired soda brand (X)
Step 5: Search SVM 3 for desired soda brand (X)
Step 6: Search SVM 3 for cost of Brand X
 Step 7: Search SVM 3 for money slot
        Does it accept quarters only?
        Does it accept dollars and quarters?
Step 8: Find change in pocket
 Step 9: Get change from pocket
Step 10: Examine change for quarters
Step 11: Get wallet from pocket
Step 12: Examine bills in wallet for $1.00 bills
Step 13: Get one $1.00 bill from wallet
Step 14: Put wallet in pocket
Step 15: Put unneeded change in pocket
Step 16: Insert money into SVM 3
Step 17: Select Brand X on SVM 3 button array
Step 18: Get soda
Step 19: Enjoy a refreshing beverage
```

Figure 11.2 Example of a task description for the task of buying a beverage from a vending machine.





Chat about it!

How could you support your Matrix with instructional strategies?

Person- centered Values	Setting 1	Setting 2	Setting 3	Setting 4
Value 1				
Value 2				
Value 3				



Task Analysis Activity

Create the steps of a task analysis and steps to teach a skill that would be important to someone you support

- What is the skill?
- What are the steps?
- What prompts would be effective for the person?
- What prompt hierarchy would you use to teach each step of the overall skill?





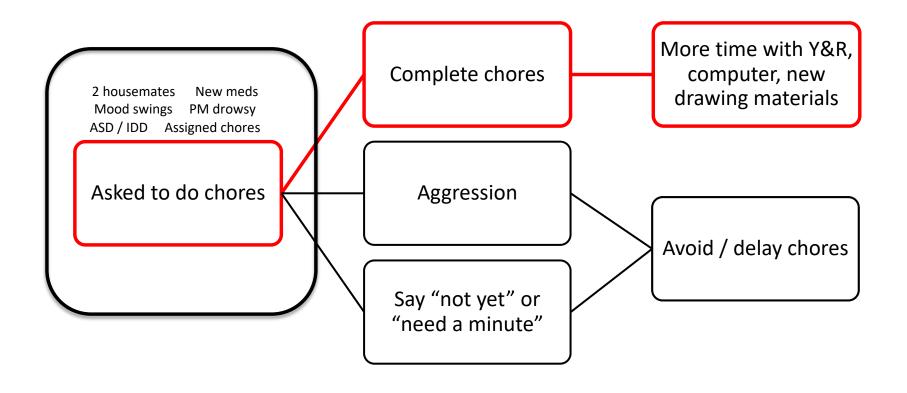
Violet Case Study

- Revisit the Competing Behavior Pathway
- Revisit context and antecedent strategies
- Create instructional strategies





Competing Behavior Pathway







Behavior Pathway Plan

Context Modifications	Antecedent Strategies	Instructional Strategies	Reinforcement Strategies	Positive Responses to Challenges
Talk with medication prescriber to adjust timing of afternoon medication dose (avoid drowsiness) Create chore list together with Violet vs. assigning chores				





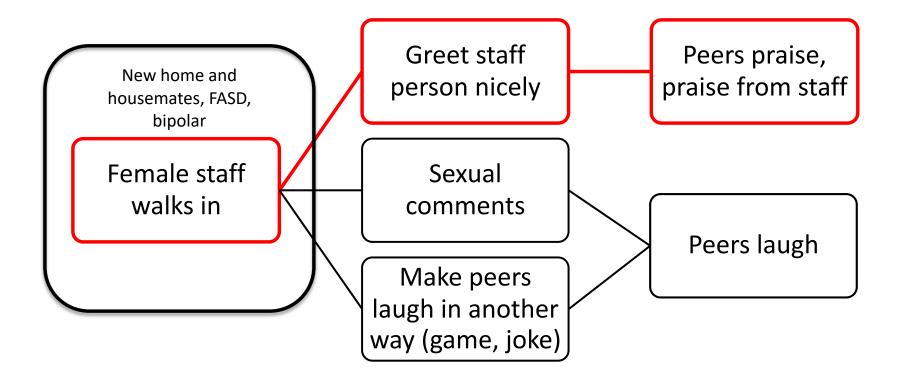
Abdi Case Study

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Competing Behavior Pathway







Behavior Pathway Plan

Context Modifications	Antecedent Strategies	Instructional Strategies	Reinforcement Strategies	Positive Responses to Challenges
 Male staff vs. female Person centered planning – are housemates a good fit, what kind of peers are best fits, learn about his tendencies and his values / goals – so good reason for managing impulses, Hx with treating women 	 Provide him with a joke book (appropriate jokes) Create a routine for Abdi and the staff person to greet when she arrives 	 Practice telling appropriate jokes Practice greetings 	• Step 1	• Step 1





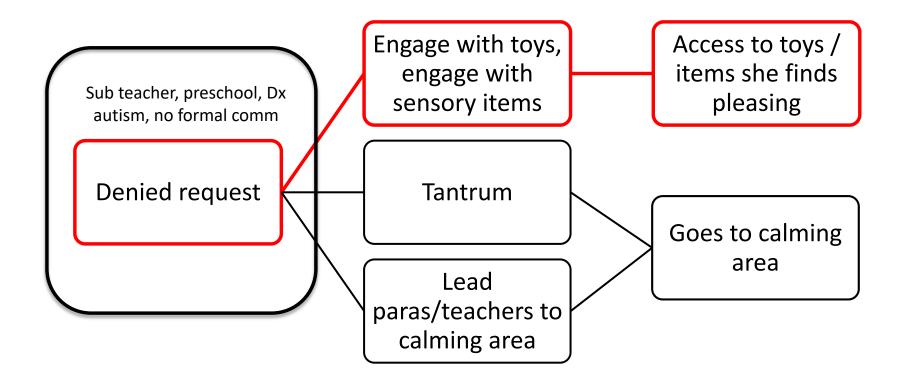
Emma Case Study

- Revisit the Competing Behavior Pathway
- Revisit context and antecedent strategies
- Create instructional strategies





Competing Behavior Pathway







Behavior Pathway Plan

Context	Antecedent	Instructional	Reinforcement	Positive Responses to Challenges
Modifications	Strategies	Strategies	Strategies	
Time with Emma and Sub at start of the day to connect better	 Schedule proactive access to sensory time throughout the day Visual schedules / timers for each activity 	Teach her to lead to sensory area throughout the day	• Step 1	• Step 1





Building a PBS Plan REINFORCEMENT STRATEGIES





What is Reinforcement?

- An outcome generated by a behavior that makes that behavior more likely in the future (makes it stronger)
 - •We find out through FBA what reinforces challenging behavior
 - •We use those same reinforcers, and others, to strengthen more socially-desirable behaviors
- •Reinforcement is personal what works for one person likely will not work for another
 - Activity worksheet
- •It's not bribery! Who knows the difference?



Common categories of reinforcers (see handout)

- Behavior-specific praise
- Behavior-specific feedback
- Physical praise
- Special item or activity
- Tokens or points
- Break or delay





Reinforcement: what makes it work (or not?)

Individuality

Preferences matter, across individuals – ensure individualization

Contingency

Reinforcer is only delivered when the behavior happens

Immediacy

Reinforcer is delivered right away

Schedule

How often the reinforcer is available

Magnitude

 The amount / potency of the reinforcer should match the difficulty of the expected behavior





CHAT ABOUT IT!

Share an example of when you tried to use reinforcement but it was not very effective because of one (or more) of these important elements of reinforcement was not set up as well as it could have been:

- Individuality
- Contingency
- Immediacy
- Schedule
- Magnitude





What behavioral improvement challenge are you facing?

- A behavior is not happening enough
 - Learn a new skill for a particular setting or routine
- A behavior is happening too much
 - It's OK, just needs to happen less
 - It's not OK, cannot happen at all
 - A functional replacement behavior is needed, that perhaps is physically incompatible
 - Recognizing the absence of challenging behavior is important
- A behavior is happening under the wrong circumstances





"Differential Reinforcement" Approaches when a behavior is happening too much

- Differential Reinforcement of Alternative behavior (DRA)
 - Drawing pictures with colored markers rather than stereotypically flipping the markers
- Differential Reinforcement of Incompatible behavior (DRI)
 - Give Idina a mirror to hold (she loves mirrors) so that she doesn't grab or hit staff transferring her to her wheelchair.
- Differential Reinforcement of Low rates of behavior (DRL)
 - Jill interrupts an average of 9 times per 30 minute session. If she interrupts no more than 2 times every 10 minutes, she gets a token at each interval
- Differential Reinforcement of the Omission of behavior (DRO)
 - Rhonda receives a token for each 5 minute interval she goes without engaging in verbal aggression.





Summary of "differential reinforcement" procedures

	Purpose	Management	Objective
DRL	Reduce behavior to socially-desirable level	Focus on reducing # of occurrences	Tom will be out of his work area no more than 2 times in 40 minutes
DRI DRA	Reinforce a functional alternative or setting-specific behavior	Focus on developing more socially-desirable behavior that better connects person to valued life	Tom will press a button to indicate he wants to take a break instead of yelling and face slapping
DRO	Reduce behavior to zero occurrences	Focus on increasing time of nonoccurrence	Tom will have no occurrence of leaving his work area in a 40-minute period





WHEN AND HOW OFTEN TO REINFORCE:

SCHEDULES OF REINFORCEMENT





- How often should I deliver reinforcement?
 - Every time the behavior happens?
 - Occasionally?
- Which way makes more sense along the person's journey of learning and using the new behavior?
 - During acquisition?
 - When developing fluency / mastery?



- Continuous Schedule of Reinforcement (CRF):
 - Reinforce each instance of the behavior
 - Best when:
 - Teaching a new skill (acquisition)
 - The behavior occurs at a lower frequency
 - Limitations:
 - Increases the likelihood of satiation
 - May contribute to expectation of frequent reinforcement





- Intermittent Schedules of Reinforcement
 - Reinforce the behavior after some number of occurrences
 - Behavior becomes resistant to extinction
 - Examples:
 - Ratio Schedules
 - Interval Schedules
 - Response-duration schedules







Non-Contingent Reinforcement

- Delivering reinforcement on a fixed-time schedule independent of any behavior
- Provides the individual the reinforcer (the one maintaining the inappropriate behavior) independently of the performance of the challenging behavior
- The individual receives the reinforcer at preselected intervals of time and challenging behavior is ignored
- Disassociates the reinforcer from the behavior (and decreases the challenging behavior)





Intermittent Schedules of Reinforcement

SCHEDULES OF REINFORCEMENT					
	Fixed	Variable			
Ratio	Every so many: reinforcement after every n th behavior, such as buy 10 coffees, get 1 free, or pay per product unit produced	After an unpredictable number: reinforce- ment after a random number of behav- iors, as when playing slot machines or fly-casting			
Interval	Every so often: reinforcement for behav- ior after a fixed time, such as Tuesday discount prices	Unpredictably often: reinforcement for behavior after a random amount of time, as in checking for e-mail			





Туре	How	When	Challenges
Fixed Interval	Every so often: Reinforce after a specified amount of time	With low to moderate rates of the behavior	Might see less response right after the interval, then increased response toward the end of the interval
Variable Interval	Unpredictably often: Reinforce after an average amount of time	With moderate rates of the behavior	If only one response is required in the interval, rates of the response might be lower
Fixed Ratio	Every so many: Reinforce after every X number of responses	With high rates of the behavior	Student might notice the pattern after time and pause response following reinforcement
Variable Ratio	After an unpredictable number: Reinforce after an average number of responses	With high rates of the behavior	Good choice – number of responses is unpredictable, increasing rate of response





Fading and Tolerating Delay to Reinforcement

- Any arbitrary reinforcement system should shift to a natural system whenever possible
- Fading: reinforcement gradually becomes available less often / contingent on greater amounts of appropriate behavior
 - Beware "ratio strain" (schedule faded too quickly)
- Tolerating delay to reinforcement:
 - Used when teaching someone a new communication skill
 - Initially the behavior is reinforced each time.
 - Over time, the individual is asked to wait increasing amounts of time before reinforcement.



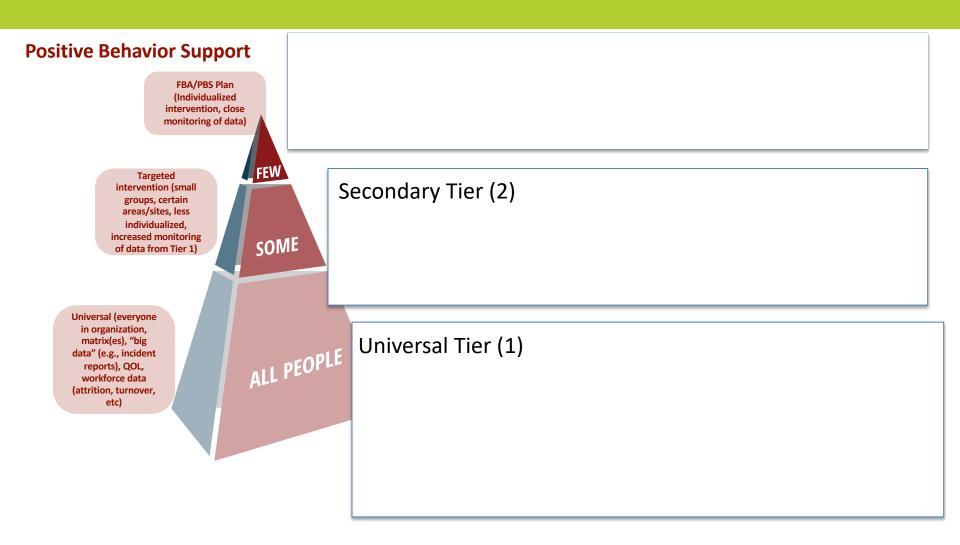


CHAT ABOUT IT!

- That was A LOT of information and A LOT of jargon
 - Post one thing that makes sense to you a piece of information from that last section that you could take back to work tomorrow and use with a person you support
 - Post one thing that does not make sense a term, a concept, a process, anything you'd like explained better



Reinforcement across tiers of support







Example of Reinforcement at Tier 1

- Incident reports at a particular employment site suggest that 44% of problem behaviors occur in the break room area
- An analysis of the CSSPs for the people who work at that site indicate that 75% have goals to increase socialization skills

POSSIBLE INTERVENTION

 Staff identify opportunities to prompt people to make and respond to social bids, praise them for doing those things (arbitrary reinforcer), and nurture conversations / interactions that emerge between people who appear to have common interests (naturally-occurring reinforcer)





Tier 1: Teaching to and Monitoring Your Matrix

	Times of Day	Free Time	Cleaning Up	Lunch Time	Fundraising	During Outside Activities
V a I u e s	Respecting Each Other	Respect another's privacy, Understanding differences	Offer to help each other, talk to each other kindly if something isn't working	Push in/pull out chairs for others, Ask if help is needed	Everybody can do something, break bigger jobs into smaller parts	Respect each other's preferences, follow the rules, watch out for each other
	Having a Positive Attitude	Be aware of your environment, Be aware of how other's are feeling	Respect people's differing abilities, Get involved	Talk to people that you may not otherwise talk to		Appreciate the moment and activity, say thank you to those who plan activities
	Working Together	If there is nothing to do, get together and decide to do something, Clean up after yourself	Offer to help each other with the bigger tasks	Clean up after yourself, allow people time to finish eating before cleaning up/try not to rush people	Develop committees to break down the bigger jobs	Be friendly, clean up after yourself, be neat
	Positive Communication	Respect boundaries, have compassion, use humor respectfully	Ask for help if you need it, offer help if you see someone needs it		Plan more fundraisers, talk about how to plan them at Clubhouse meetings	Be polite to the public and each other
	Volunteering	Welcoming new members, help others to particiapte more	Try out different tasks, try not to always do the same things		Volunteer for what you can, attend Clubhouse meetings to learn of and present opportunities	Help other people stay on time and with the group
	Support for Each Other	Offer to help, share computer time, only share things with others that you are comfortable sharing	Take turns doing tasks, develop teams for getting bigger cleaning projects done	can - 2 people can do a	If someone or a	Be friendly, get involved in planning activities





Example of Reinforcement at Tier 2

 John, Pete, and Eduardo were not as successful as other employees at the site in improving on their social skills in response to the Tier 1 intervention. They continue to get into loud arguments that disrupt other workers.

POSSIBLE INTERVENTION

- Staff created a time for the three men each morning to work on social skills in a quiet place.
- Staff use a curriculum for developing social skills and friendships, which
 includes praise (arbitrary reinforcer) for even small pieces of social interactions
 such as orienting the body toward a partner, and nurturing conversations /
 interactions that emerge between the men when common interests emerge
 (naturally-occurring reinforcer)





Example of Reinforcement at Tier 3

 John continues to get into loud arguments with others, including provoking those arguments, and often refusing to participate in the Tier 1 and Tier 2 interventions.

POSSIBLE INTERVENTION

- Staff conduct an FBA
- They determine the function of John's arguing with others is to escape work and interactions with his co-workers.
- Staff work with John to determine what would motivate him to be part of the work environment (reinforcement) and what type of work better suits his preferences and skills (adjust context)





CHAT ABOUT IT! Consider how you could support your Matrix with reinforcement strategies

Person- centered Values	Setting 1	Setting 2	Setting 3	Setting 4
Value 1				
Value 2				
Value 3				

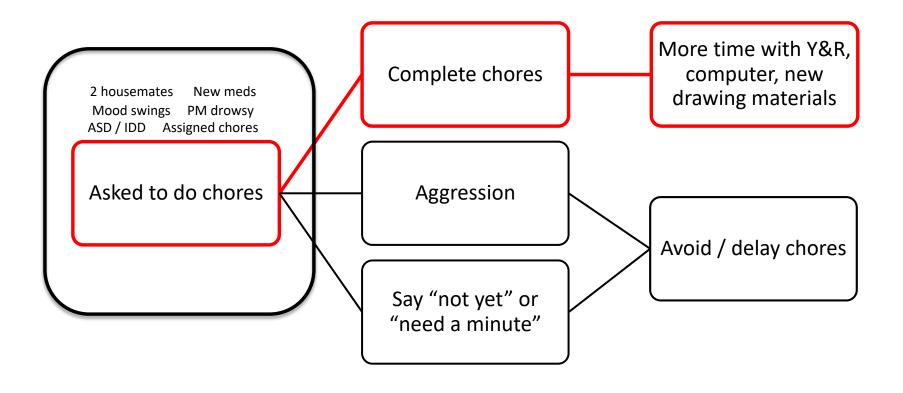


Violet Case Study

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Competing Behavior Pathway





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Modifications	Strategies	Strategies	Strategies	to Challenges
Talk with medication prescriber to adjust timing of afternoon medication dose (avoid drowsiness) Create chore list together with Violet vs. assigning chores	 Collaboration Choice – which chores to do when, on which days, in what order 	• Step 1	• Step 1	• Step 1



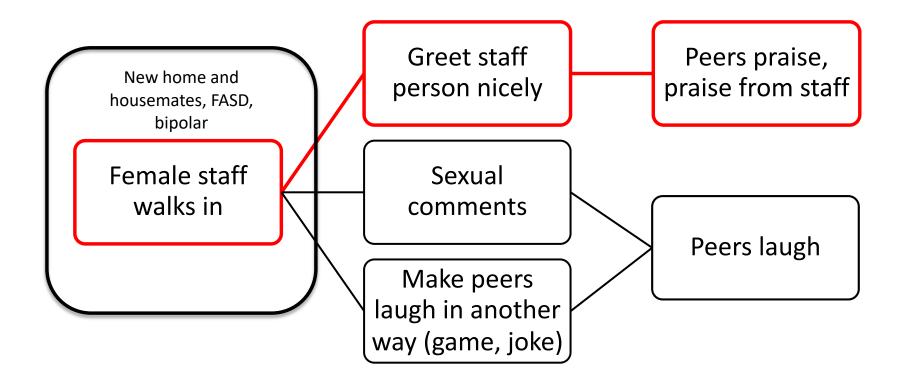


Abdi Case Study

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	Strategies	Strategies	Strategies	to Challenges
 Male staff vs. female Person centered planning – are housemates a good fit, what kind of peers are best fits, learn about his tendencies and his values / goals – so good reason for managing impulses, Hx with treating women 	 Provide him with a joke book (appropriate jokes) Create a routine for Abdi and the staff person to greet when she arrives 	 Practice telling appropriate jokes Practice greetings 	• Step 1	• Step 1



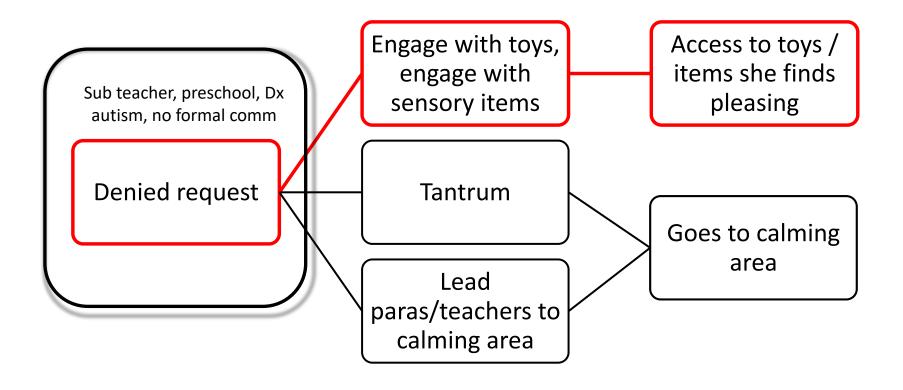


Emma Case Study

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Competing Behavior Pathway





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For Next Week: further consider how you could support your Matrix with instructional and reinforcement strategies

Person- centered Values	Setting 1	Setting 2	Setting 3	Setting 4
Value 1				
Value 2				
Value 3				



Deeper Dive

Interested in more detailed behavioral support resources?

- Prompting, shaping, chaining, generalization, extinction, reinforcement schedules, self-management, etc
- The following websites have useful, free information
 - -The May Institute: https://www.mayinstitute.org/news/acl.html?cat=182
 - -I Love ABA (use the search bar): https://www.iloveaba.com/
 - -Behavior Babe: https://www.behaviorbabe.com/
 - If you are interested in module-based learning, you may look into the AFIRM modules. Note the application examples are children with ASD, but the principles are broadly applicable.
 - https://afirm.fpg.unc.edu/afirm-modules





LIKE-LEARN-CHANGE





Three Post-it Notes

- What did you LIKE about today?
- What did you LEARN today?
- What would you CHANGE about today?







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