

## Working to change acute problem behaviors: Assessing and treating in crisis



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## Agenda

- Introductions... Hello!
  - A bit about me – Matt Welch
  - A bit about all of you.
- Training Objectives
  - A model for addressing acute behavior.
  - Why function matters.
  - Assessing behavior through function.
  - Using function to intervene for problem behavior.
  - Why take data.
  - Managing your own response.
- Q & A



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## What Is Applied Behavior Analysis?

Applied Behavior Analysis or ABA is a science devoted to the understanding and improvement of human behavior.



Based on basic principles of learning and motivation which come from a body of scientific research.



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## Behavior Defined

•Everything people do, including how they move and what they say.

•Focus on measurable & observable behavior – “Dead Man's Test”

Be quiet	Talk
Don't argue	Follow Directions
Be good	Read a book
Don't interrupt	Raise your hand




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## Problem Behavior

Behavioral *excesses*- occur too often  
 Breaking items, interrupting, arguing, hitting

Behavioral *deficits*- occur too little or nonexistent  
 Finishing homework, taking baths, doing chores,  
 getting to work on time, doing things for fun on own,  
 initiating conversation




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## Problem Behavior: Why “problem”?

•Can make an individual’s life more difficult and less fulfilling.

•Can make the lives of people around an individual more difficult.

•Can interfere with learning or limit an individuals access to locations/activities.




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## Stages of changing acute behavior

- Stabilization/crisis management
  - Getting to a place where you can assess and plan
  - Establishing safety
- Assessment
  - Determining what factors may be driving behavior
  - Planning treatment
- Treatment
  - Implement treatment based on assessment
  - Most likely both behavior increase and behavior decrease methods
- Treatment evaluation, revision, extension
  - Measure the effect of treatment
  - Fix the treatment
  - Extend the treatment (e.g., generalization, skills building)




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## Stabilization/Crisis management

- Getting to a place where you can safely assess and treat
- Acting to reduce risk
  - Environmental changes
  - Training in crisis management
  - Crisis planning and back-up resources
  - Medical/physical assessment for acute, dangerous conditions
- Setting up conditions which allow for more clarity when you assess and treat




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## Changing acute behavior: Assessment

If we're going to avoid simple trial and error (or attempt to avoid it) and have more hope of knowing what works and why, we'll have to do an assessment.

A behavior analyst will most likely start with a Functional Assessment – after gathering broader information about the referral concerns, and key information about the individual.




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### Identifying behaviors to address

- Determine which behavior is of greatest concern
- Collect information (data) to determine:
  - Is the behavior harmful to the individual, to other individuals or does it cause damage to the environment or personal property?
  - How often does the behavior occur?
  - Does the behavior significantly impair learning of the individual or others in the environment?
  - Does the behavior limit the individuals access to certain environments or activities?
  - Does the behavior draw unwanted/negative attention to the individual (is it socially stigmatizing)?
  - Does the behavior interfere with relationships (bothers others)




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### Changing acute behavior: Function

Function is the reason for the behavior. You could call it the purpose the behavior serves for the person. Maybe even the *meaning* of the behavior.

Function = the combination of antecedents, consequences, and third variables which cause a behavior to continue happening.




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### Function and Contextual Variables

Behavior analysis ain't about behavior alone, but about analyzing the system in which behavior occurs

We want to focus on **contextual variables** – things which make behavior more or less likely *and which we can change*.




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### Function of behavior: Communication metaphor

- Problem behavior can work to communicate
    - To demonstrate wants or needs
    - To gain access to something
    - To escape or avoid something
  - Those we work with or care for may not have the language skills to ask for what they want.
    - And they may not know or care that their way of telling you is not the “appropriate way.”
- Avoid letting communication infer “planned” to you.




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### Importance of Function

- If we understand why behaviors are occurring we can identify effective strategies to:
  - Decrease undesirable or problem behaviors
  - Increase appropriate behaviors
- Avoid ineffective interventions
  - Interventions which do not match function may not work
  - Or they may make behavior worse (e.g., misapplication of time-out)




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### Function of Behavior

Examples:

Meal prep (low attention) → Dad in kitchen → Bang pan → Dad stops pan banging and reprimands (attention delivered)

Little sleep → in workshop with work presented by job aide (aversive task) → hit job aide → required to go to quiet calming area (escape task)

Muscle spasticity and skin rash → morning care routine presented (aversive task) → self-injury and aggression → cares aborted or interrupted (escape)




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### Function of behavior: Reinforcement

#### What is reinforcement?

A functional relation in which a behavior consistently followed by a specific consequence happens more (gets stronger, is reinforced) over time.

#### Examples

- Social (talking, giving compliment, high five)
- Tangible (food, money, movie tickets, prize box)
- Activities (playing a game, going to the park, choosing dinner)
- Privileges (outings, later bedtime)
- Breaks (from tasks or work)




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### My reinforcers might not be your reinforcers

Usually, reinforcers depend on the person.

#### Examples:

Pizza! OR Kimchi?!?



Attention from:

Mrs. Pritzl OR Spitting History Teacher



#### So how do we know?

1. What does your person like?
2. If its delivered right after a behavior, does the behavior happen more in the future?




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### Function of Behavior

From a behavior analytic perspective, if you don't know the function of a behavior, you really know very little useful about the behavior.

Hence Functional Assessment




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### Functional Behavior Assessment

- **Functional assessment** approaches:
  - indirect correlation (e.g., rating scales, interviews)
  - direct correlation (e.g., ABC direct observation)
  - direct causal: *functional* (experimental) *analysis*.
- **Functional analysis:** (once upon a time called "experimental analysis")
  - One sub-type of functional assessment
  - Only type directly testing causal relationships
  - Most valid

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### Functional behavior assessment

- Correlation functional **assessment** approaches:
  - Allow for gathering contextual information
  - Typically are not predictive of function in themselves
- See: Pence, S.T., Roscoe, E. M., Bourretts, J.C., & Ahearn, W. H. (2009). Relative contributions of three descriptive methods: Implications for behavioral assessment. *Journal of Applied Behavior Analysis*, 42(2), 425-446.
- **Functional analysis:**
  - Tests hypotheses often derived from correlation approaches
  - In my experience, often directly lead to interventions




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### Functional assessment methods (indirect)

- Functional assessment interview
- Scatter plot
- Antecedent – Behavior – Consequence (ABC) recording
- Direct observation




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### FBA interview

A structured interview asking questions like:

- What are the primary behaviors of concern?
- What do they look like?
- How often are they happening?
- Do they happen together or apart?
- How do factors like hunger, fatigue, illness, physical characteristics seem to impact behavior?
- Are the behaviors more or less likely in certain settings, with certain people, in certain activities, or at certain times of day?
- What seems to trigger the behaviors?
- How does the person communicate?
- What sorts of choices does the person have in a day?
- What are the person's likes and dislikes?
- And so on.




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### Scatter plot

Record occurrence of behaviors across the day to determine patterns.

Look for correlations with schedule:

- Activities
- Events
- People
- Transitions
- Medications
- Physical conditions
- Etc.




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### Scatter plot

Time	Day						
	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Early morning							
08:00 AM							
09:00 AM							
10:00 AM							
11:00 AM							
12:00 PM							
01:00 PM							
02:00 PM							
03:00 PM							
04:00 PM							
05:00 PM							
06:00 PM							
07:00 PM							
08:00 PM							
09:00 PM							
10:00 PM							
Night							

Directions: Use hash marks to show about how many times [the behavior of concern] happened in each hour period.

Example: If [the behavior] happened 5 times between 3 and 4 PM on Tuesday, put the following in the box for that date and hour:    | | | | |

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## ABC Recording

Since **function** can be considered a combination of:

- Antecedents to the behavior
  - The Behavior
  - Consequences immediately following the behavior
- Logically, then, we try to track antecedents and consequences along with behaviors.




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## Structured ABC recording

STRUCTURED ABC (ANTECEDENT - BEHAVIOR - CONSEQUENCE) ANALYSIS FORM

DATE	TIME	Individual	Residence
<b>BEHAVIOR:</b>			
<b>INDICATOR WHEN BEHAVIOR OCCURRED:</b>			
<input type="checkbox"/> Nonverbal <input type="checkbox"/> Verbal <input type="checkbox"/> Community coding <input type="checkbox"/> Other			
<b>GENERAL ACTIVITY IN PROGRESS:</b>			
<input type="checkbox"/> Watching TV, music, etc. <input type="checkbox"/> Interacted with another person <input type="checkbox"/> Meal preparation, eating, clean-up <input type="checkbox"/> Staff care or household chore <input type="checkbox"/> Academic work or training activity <input type="checkbox"/> Alone (talking, in bed, etc.) <input type="checkbox"/> Other (SPECIFY)			
<b>ANTICIPATED ANTECEDENTS:</b>			
<input type="checkbox"/> Ignored by staff or staff walked away <input type="checkbox"/> Person material or food removed/obscured <input type="checkbox"/> Other request denied <input type="checkbox"/> Staff instruction to work <input type="checkbox"/> Provoked by peer <input type="checkbox"/> None (immediate antecedents nothing)			
<b>ANTICIPATED CONSEQUENCES:</b>			
<input type="checkbox"/> Attention, response block, told to "stop" <input type="checkbox"/> Attention to another individual <input type="checkbox"/> Future individualized plan <input type="checkbox"/> Work requirement terminated <input type="checkbox"/> Staff walked away <input type="checkbox"/> Staff did nothing			
<b>REACT</b> <b>REACT</b> <b>REACT</b> <b>Auto React</b> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>			
TOTAL			

**DIRECTIONS:**  
 1. Use one column for each time the behavior happens.  
 2. In different rows, check off:  
 (a) the date  
 (b) the time  
 (c) where the behavior occurred  
 (d) what activity was going on when it happened  
 (e) what happened right before the behavior (immediate antecedent)  
 (f) what happened right after the behavior (immediate consequence)

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## Functional analysis

- Looks directly at causation by varying the factors thought to make the function. No more "arm-chair" analysis!
- Forces you to find contextual variables.
- Causation demonstrated via "differential responding"
- Can be very good for identifying what to change to create intervention.
- However, more intrusive and ethics require a risk-benefit analysis.




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### Using function to intervene

- Treatment is more effective when function is addressed.
- We can address:
  - the **A**, the **B**, or the **C**
  - or any combination
  - As well as “third variables”.




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### Antecedent interventions

- Often seen as changing the triggers.
- Examples:
  - Pre-session access to vacuum.
  - Structured schedule with visual cuing.
  - Foreshadowing.
  - Social stories.
  - Numbing lotion/balm.
  - KWL-Plus (academic intervention).
  - Visual timer.




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### Addressing antecedents: Expectations

- Set realistic expectations, limits & rules
- Decide on expectations and consequences BEFORE challenging behaviors occur
- Be specific about expectations (where, when, how often)
- Discuss with your person face to face, away from distractions and when child is calm/relaxed
- Ask him or her to repeat expectations to ensure that he/she understands
- Frequently remind/review rules, behavior expectations (some context dependent)




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### Addressing the behavior

•Harder to conceptualize, but essentially changing some aspect of the problem behavior itself.

•Examples:

- Placing a door closer/anti-slam device.
- Reinforcing minimal intensity of the behavior.
- Reinforcing slightly different versions of the behavior away from the problem topography.




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### Replacement behavior

•Finding and reinforcing, or teaching and reinforcing, a safer or less damaging behavior to serve the same function.

•Examples:

- Break card for break from task.
- Teaching asking for more.
- Teaching conversation skills.
- Teaching functional task creating same sensory input.
- Relaxation training.
- Coping skills for anxiety.




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### Replacement Behaviors

▫ Safe, socially acceptable way to get what you want (obtain reinforcement)

▫ Example: Johnny hits other kids in his preschool when they are playing with toys that he wants to play with. We teach him to ask for a turn playing with the toy instead.

▫ **Teach replacement behaviors outside of “problem times”**




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## Replacement Behaviors

Hitting	To get candy	Ask for candy
Screaming	To get attention	Request attention
Tantrum	To escape homework	Request a break/delay Request help with assignment
Elopement	To get attention from preferred peer	Ask to play with peer
Chewing on clothing	To get sensory stimulation	Chew on gum, beef jerky, chew necklace
Arguing with siblings	To get toys	Problem solving, ask for a turn with toy, negotiate a trade




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## Consequent interventions

•Change the consequence for the problem behavior and/or provide consequence for safer behavior.

•Examples:

- Extinction for problem behavior. (often AND ...)
- Break for asking for a break, or independent of problem behavior.
- Attention for "excuse me"
- Access to stereotypy after manipulating leisure item.




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## Addressing the behavior

•Harder to conceptualize, but essentially changing some aspect of the problem behavior itself, or how it is done.

•Examples:

- Placing a door closer to reduce door slamming.
- Reinforcing minimal intensity of the behavior.
- Reinforcing slightly different versions of the behavior away from the problem topography.




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## Reinforcement: Planning & Using

- In general, reinforcement works better if
  - Delivered consistently
  - Immediately
  - Predictable
  - For specifically targeted, active behaviors. (See “Dead Man’s Test”)
- So, best if planned out and structured:
  - Contracts
  - Sticker systems
  - Points systems
  - Token economies, etc.




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## Addressing “third variables”

- Other factors which are demonstrated to impact behavior, for example:
  - Sleep disruption
  - Cycling mood disorder
  - Skin rash
  - Chronic pain
  - Chronic illness (ear infection, headache, GERD, constipation)

• This is where a tightly integrated interdisciplinary team process, tied into, personally, the FA process is important.




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## Addressing “third variables”

• Assessing for physical third variables: pain:

• HURTS:

- H** - Head (dental, headache)
- U** - Urological (kidney stones, bladder)
- R** - Reflux & GI (constipation, GERD)
- T** - Thyroid & Endocrine
- S** - Seizure (and, for older folks, possibly skeletal)

(From Steve Zelenski, DO, Ph.D., by way of Jeffery Marcus, MD)




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### Addressing "third variables"

How to address:

Use the FA and data collection to identify the role of the third variable in behavior, then:

- Obtain help in reducing or removing the third variable.
- Teach coping with the third variable.
- Track the third variable and change approaches and expectations when you can tell it is "in play".




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### Addressing "third variables"

Example: track behavioral signs of mania, no sheltered workshop on days of high mania rating (and treat the mood disorder).

Example: treat skin rash and muscle spasticity *before* demand fading and non-contingent, frequent breaks during AM cares.




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### Addressing the fourth variable: YOU

**Acceptance:** if you decide that your person has a behavior that needs to change and it is not getting better, you need to accept:

- What you have been doing up until this point has not been working.
- Something about your behavior must change.

#### Commitment

- Start small, try to change 1 thing at a time
- **Prioritize**- don't try to tackle everything all at once

#### Perseverance:

If the problem didn't happen overnight, why would the solution?




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### Coping strategies for avoiding burnout

In the moment:

- Remain calm/neutral
- Be self aware
- Be mindful of your own feelings/reactions
- Avoid cognitive distortion
- Try not to take your child's problem behavior personally




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### Coping Strategies

Over time:

- Manage your own expectations
- Have a plan
- Develop stress/frustration management strategies and use positive self-calming strategies (model this for your kids) (loose jaw)
- Use positive self-talk
- Debrief following problem behavior
- Know your limits and ask for help if you need it




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### Coping Strategies

Avoid coercion- strategies that we use in the moment when faced with a problem behavior or conflict. Intended to help but can backfire because they are negative in nature and are intended to create feelings of guilt, shame or sense of being forced.

Kinds of coercion:

Questioning, arguing, sarcasm, force, threat, criticism, despair, logic, taking away, telling on them, one-up-manship, silent treatment




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Thank-you!



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