

Comprehensive Functional Assessment

Elizabeth Hughes, Ph.D., BCBA and Lori Ann Dotson, Ph.D.

Positive Approaches to Solving Behavior Challenges

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1

Comprehensive Functional Assessment

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2

Organizing Behavioral Services

•Services	
•Service Design and Plan	•Total Quality Assurance Systems
	•TQA Systems
•Assessment Guide •IABA •Comprehensive Functional Assessment Report and Recommended Support Plan	•TQA Systems

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3

Person Centered Behavioral Supports

BEHAVIORAL ASSESSMENT					
Process		Content		Materials	
MULTI-ELEMENT SUPPORT PLAN					
PROACTIVE STRATEGIES			REACTIVE		
Ecological Changes	Positive Programming	Focused Support Strategies	Situational Management		
MEDIATION					
TRAINING			CHANGE AGENTS		
General	Specific	Compliance	Natural	Specialized	Professional
OUTCOME MEASURES					
Speed & Degree Of Effects	Durability Of effects	Generalization Of Effects	Side Effects	Social Validity	Clinical / Educational Validity
Over Time	Episodic Severity				

4

4

OUTCOMES

In order to achieve the outcomes presented below, we need to know more about the person.

OUTCOME MEASURES					
Speed & Degree Of Effects	Durability Of effects	Generalization Of Effects	Side Effects	Social Validity	Clinical / Educational Validity
Over Time	Episodic Severity				

5

5

Functional Behavior Assessment

Where do we get the ideas that drive the Ecological Changes?
How do we identify the skills that need to be taught?
How will we motivate the person?
Where do we learn what to do and what not to do?
Describe a way we might learn to react?

WE GET THIS INFORMATION FROM THE FUNCTIONAL BEHAVIOR ASSESSMENT

6

6

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What is one purpose of the assessment?

To identify the function of the behavior!

What is the meaning behind the behavior?

This is more than simply what is reinforcing the behavior. This is **WHY** the person is doing it.

WHAT'S THE MESSAGE?

7

Functions / Meaning of Behavior
From the Person's Perspective

Linear Conclusion: Attention / Escape / Automatic / Tangible

- **Communication**
 - "Go Away!
 - "I Want."
 - "I'm Confused"
- **Acquire / Obtain**
 - Food ("I'm really hungry.")
 - Attention ("Please talk to me!")
- **Escape / Avoid**
 - Demand ("Don't talk to me that way!")
 - Loud Noise
 - Task ("It's too hard!")
- **Increase / Decrease Sensory Stimulation**
 - Tactile / Vibration
 - Intense Smell
 - Lights Flickering
- **Manage Negative Emotions**
 - Anger at Being Touched
 - Anxiety Around Loud Noise
 - Anger at Criticism
- **Social Interaction**
 - Greeting
 - Play
- **Neurological / Psychiatric / Medical**
 - Blood Sugar
 - Seizures

8

FUNCTIONS OF BEHAVIOR

Traditional	Person-Centered
Attention Seeking	-To interact with others
Escape/Avoidance	-To prevent an upsetting situation
Tangible	-To communicate a want or need for an item
Automatically Reinforcing	-To fulfill my sensory needs independently -To express emotions/relieve stress

9

FUNCTIONS OF BEHAVIOUR

10

Linear Model of Support - ABC Model

ANTECEDENT – BEHAVIOR – CONSEQUENCE

11

Linear Model of Support - ABC Model

Assumption - most behaviors can be modified by modifying the antecedents and consequences of behavior.

THIS IS AN EXTREMELY NARROW APPROACH AND MAY BE NOT THE CASES WITH MANY OF THE PEOPLE WE SERVE.

12

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ETHICAL CONSIDERATIONS

What are the ethics of changing the consequences for someone's behavior when they have no volitional control over that behavior?

What are the ethics of punishing someone for a behavior resulting from a skill deficit? Or forcing someone to do something that they do not understand?

When did we buy in to the belief that by looking at the immediate antecedents and consequences to behavior that we suddenly understand a whole person?

13

13

ETHICAL CONSIDERATIONS

Need information about the **WHOLE PERSON**

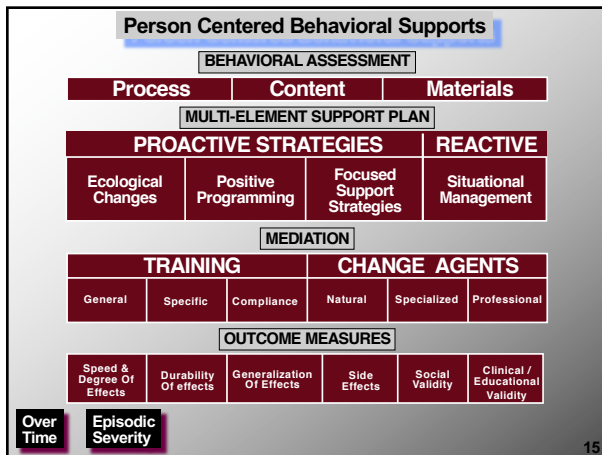
Their **LIFE**, their **HISTORY**, everything!

How do we get that info?

...**COMPREHENSIVE FUNCTIONAL ASSESSMENT!**

14

14



15

15

Functional Assessment

- Assessment Methods
 - Information Gathering
 - Review of records
 - Interviews
 - Observation
 - Interactions
 - Summary, Analysis and Synthesis

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16

Assessment Methods

- **INFORMATION GATHERING**
 - Direct Observation / Interaction
 - Probes / Role Play / Direct Manipulation
 - ◆ Iwata and Colleagues: Social Disapproval (attention), Academic Demand (escape), Unstructured Play (control), Alone (self-reinforcement)
 - Records Review
 - Interviews
 - Rating Scales / Screening Forms
 - ◆ Mark Durand - Motivation Assessment Scale (MAS)
 - ◆ Reinforcement Inventory
 - Data Reduction / Analysis
- Summary, Analysis and Synthesis
- **Report Writing:** Putting together pieces of a jigsaw puzzle

17

17



18

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19

Functional Assessment

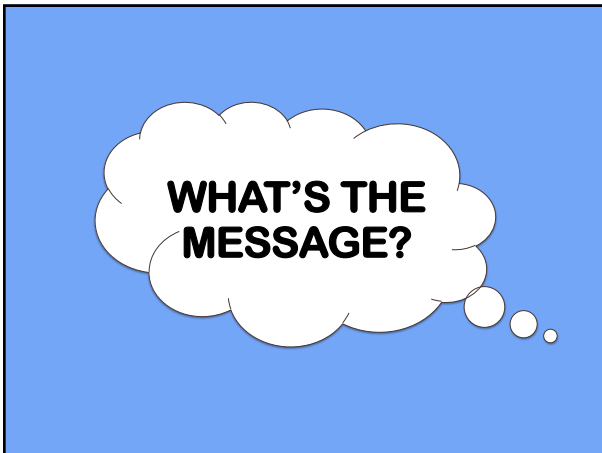
Forms the basis for **PROPER** program development

The result of **IMPROPER** Functional Assessment

- Lengthy Interventions with little or no success

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20



21

Case Study

- ❖ Mikey and the 10-year BIP
 - Adopted at 4
 - Successful kinder
 - 1st grade, bxs begin
 - worsen until 9th grade year put into 15 prone restraints in the school setting

FULL, COMPLETE BEHAVIOR SUPPORT PLAN IN PLACE TO TREAT ESCAPE

22

22

Mikey's Story

- ❖ Mikey's history:
 - Abandoned by mom/dad, in foster care at 3
 - Adoptive dads had not had children before
 - Dads have good cop/bad cop approach
 - School not completely honest about Mikey's performance
 - Suspended for challenging behavior first time in 4th grade
 - Prone restraint begins in 7th grade
 - Suspensions consistently increase over time
 - Behavior challenges consistently increase over time

23

23

Mikey's Story

- ❖ Target behavior identified in 2nd grade: Aggression and Oppositional Behavior
- ❖ Target behavior identified in 9th grade: Aggression and Oppositional Behavior
- ❖ Function identified in 2nd grade: ESCAPE
- ❖ Function identified in 9th grade: ESCAPE
- ❖ No history of treatment success... treatment continued for 7 years

24

24

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What Information May Be Included In Behavioral Assessment?

What do we need in order to have a clear picture of this person and their needs?

25

25

Kanfer and Saslow, 1969 Behavioral Diagnostics

“A behavioral analysis excludes **no data** relating to a patient’s past or present experiences as irrelevant.”

26

The Behavior Assessment Guide

Thomas J. Willis
Gary W. LaVigna
Anne M. Donnellan

27

CONTENTS	
INTRODUCTION	iii
BEHAVIOR ASSESSMENT GUIDE	1
IDENTIFYING INFORMATION	1
REASONS(S) FOR REFERRAL AND ASSESSMENT ISSUES	2
BACKGROUND INFORMATION	4
COMMUNICATION DOMAIN	25
COGNITIVE / ACADEMIC DOMAIN	31
SELF CARE DOMAIN	32
DOMESTIC SKILLS DOMAIN	33
COMMUNITY SKILLS DOMAIN	34
LEISURE SKILL / RECREATIONAL DOMAIN	35
MOTOR ACTIVITY DOMAIN	35
EMOTIONAL DOMAIN	36
SOCIAL SKILLS DOMAIN	37
PROBLEM BEHAVIOR INVENTORY (PBI)	39
MEDIATOR ANALYSIS	48
MOTIVATIONAL ANALYSIS	54
SUMMARY OF TARGET AREAS OR COMPLAINTS	55
FUNCTIONAL ANALYSIS OF PROBLEM BEHAVIORS	56, 62, 68, 74
REINFORCEMENT INVENTORIES FOR CHILDREN AND ADULTS	81
REINFORCEMENT INVENTORY FOR CHILDREN	83
REINFORCEMENT INVENTORY FOR ADULTS	91
APPENDIX I	99
BEHAVIOR ASSESSMENT REPORT AND RECOMMENDED SUPPORT PLAN CHECKLIST REVIEW FOR WRITTEN REPORT	99

28

The primary purpose of a CFA is to understand the meaning of the behavior from the person’s point of view

29

29

Overview of Functional Assessment

Referral Information	Other Background Information
Description Of The Person <ul style="list-style-type: none">• Physical Characteristics• Likeability• Cognitive Abilities• Communicative Abilities• Motor / Perceptual Abilities• Self-Care Skills• Social Skills• Community Skills• Domestic Skills• Leisure / Recreation Skills	<ul style="list-style-type: none">• Family History and Background• Living Arrangement• Program Placement• Health and Medical Issues<ul style="list-style-type: none">• Eating / Sleeping Habits• Blood Sugar / Seizures• History of Treatment
	Functional Analysis of Behavior
	Mediator Analysis
	Motivational Analysis
	Ecological Analysis

30

30

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Table of Contents

- Being late for Dr's appointments 4
- Being late for STEP or work 5
- Arriving home on time 5
- Bank not cashing my check 6
- Being homeless 7
- Being harassed by children 8
- Being harassed by weirdos at the bus stop 9
- Being kicked out of LA Goal 10
- Buying a new bus pass 13
- Breaking a window by throwing a chair 14
- Carrying heavy groceries from the store to home 16
- Calling parents too many times 17
- Checkbook hiding place 18
- Getting evicted 19
- Etc. 19

31

Arriving Late To Dr's Appointment

- When I am afraid of being late for my Dr's appointment, I won't die.
- Many people are late for Dr's appointments.
- Dr's are often late for appointments.
- There are lots of things I can do to make sure that I will be on time.
- I can
 - ◆ Check my weekly planner to make sure that I won't forget my appointment time.
 - ◆ Leave early to give myself extra time to arrive at the doctor's office.
 - ◆ I can call the doctor and tell him that I might be late.
 - ◆ Make a new appointment if I have missed it.

32

Overview of Functional Assessment

<p>Referral Information</p> <p>Description Of The Person</p> <ul style="list-style-type: none"> • Physical Characteristics • Likeability • Cognitive Abilities • Communicative Abilities • Motor / Perceptual Abilities • Self-Care Skills • Social Skills • Community Skills • Domestic Skills • Leisure / Recreation Skills 	<p>Other Background Information</p> <ul style="list-style-type: none"> • Family History and Background • Living Arrangement • Program Placement • Health and Medical Issues <ul style="list-style-type: none"> • Eating / Sleeping Habits • Blood Sugar / Seizures • History of Treatment <p>Functional Analysis of Behavior</p> <ul style="list-style-type: none"> Mediator Analysis Motivational Analysis Ecological Analysis
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33

KEEP THE PURPOSE IN MIND!

This information is helpful in understanding the meaning of the behavior

from the person's point of view

From this information, we identify starting points for solutions to the mismatches and unmet needs we discover

By meeting the person's needs and understanding the behavior from their point of view, we can create a comprehensive treatment plan.

34

Overview of Functional Assessment

<p>Referral Information</p> <p>Description Of The Person</p> <ul style="list-style-type: none"> • Physical Characteristics • Likeability • Cognitive Abilities • Communicative Abilities • Motor / Perceptual Abilities • Self-Care Skills • Social Skills • Community Skills • Domestic Skills • Leisure / Recreation Skills 	<p>Other Background Information</p> <ul style="list-style-type: none"> • Family History and Background • Living Arrangement • Program Placement • Health and Medical Issues <ul style="list-style-type: none"> • Eating / Sleeping Habits • Blood Sugar / Seizures • History of Treatment <p>Functional Analysis of Behavior</p> <ul style="list-style-type: none"> Mediator Analysis Motivational Analysis Ecological Analysis
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35

MEDIATOR ANALYSIS

- Will people be cooperative? Are they motivated to participate? Do they have the resources / skills to carry out the plan?

36

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MOTIVATIONAL ANALYSIS

- **MOTIVATIONAL ANALYSIS.**
Most reinforcement is boring.
We need to identify reinforcers that are capable of motivating the person to PARTICIPATE

WE WANT THE PERSON TO PARTICIPATE IN PLAYING THE "TREATMENT GAME."

37

37

ECOLOGICAL ANALYSIS

A key feature of the assessment process.

The purpose is to determine whether there are any conflicts between what the environment is doing and the person's needs: such as teaching people in ways that they don't understand.

Again, this information is helpful in understanding the meaning of the behavior
from the person's point of view

This is how we begin to identify solutions to the conflicts leading to challenging behavior.

38

38

Functional Analysis of Behavior

Purpose of the Functional Analysis

- Learn the Meaning of the Behavior from the PERSON'S point of view.
- Learn the function(s) of behavior for the person.
- Incorporate our understanding of the person through understanding their history and from that, what the behavior means to them

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39

39

Functional Analysis of Behavior

Components of the Functional Analysis

- Analysis of the problem behavior
- Analysis of the history of the problem
- Antecedent analysis
- Consequence analysis
- Analysis of ecology
- Analysis of meaning

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Analysis of Problem Behavior

Clear description serves several functions:

- Accurate Data Collection
- Consistent Implementation
- Person better able to learn what is desired
- Leads to an Operational Definition

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41

41

Description Of Problem Behavior

The Goals Are

1. Paint A MENTAL PICTURE Of What The Person Does.
2. Answer The Question -
"How Do You Know You Have Been Hit? Spat At? Verbally Abused?"
3. Leads To An Operational Definition.

42

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Operational Definition

A description of a behavior in reliably observable terms.

This will be the basis for intervention, data collection, and training for staff!

43

Inadequate Definitions

- Trish hits other students during recess when she does not get her way.
- Carlos makes irrelevant and inappropriate comments during class discussion.
- Behaviors associated with Attention Deficit Disorder, and
 - ◆ Behaviors associated with Obsessive Compulsion, and
 - ◆ His attention getting behaviors.
- Perseverative thinking, and
 - ◆ Not on task, and
 - ◆ Sometimes not situationally relevant.

44

Labels / Not Definitions

- Hyperactive
- Short Attention Span
- Aggressive
- Compulsive
- Obsessive
- Panicky
- Anxious
- Avoids School
- Tardy
- Perseverative
- Hitting
- Kicking

45

More Inadequate Descriptions

- lots of temper tantrums
- bad tantrum
- brief tantrum
- tantrum all through the day
- screaming tantrum
- threw a fit
- kept going off
- came close to hitting
- wanted to bite a lot
- lots of biting and kicking
- tried to go after me a number of times
- attacked me
- wanted to scratch
- kick lots
- attacking me all the time
- melted down
- got me good today
- went for my shirt
- went for my fingers

46

Inadequate Descriptions that Stigmatize

- ❖ Dangerous Assaultive Outbursts
- ❖ Whining
- ❖ Defiance
- ❖ Terrorizing Others
- ❖ Sexually Assaultive
- ❖ OCD Behaviours

47

Five Components of a Behavioral Definition

- Topography of Behavior
- Cycle of the Behavior (onset/offset)
- Episodic Severity (LaVigna and Willis, 2005 – Journal of Positive Behavior Intervention)
- Course (progression) of Behavior
- Strength of Behavior
 - √ Occurrence
 - √ Episodic Severity

48

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Topography of the Behavior

- ✗ What exactly does the person DO to behave in a particular way?
- ✗ What are the physical characteristics of the behavior?
 - What does the behavior look like?
 - What does the behavior sound like?
 - What does the behavior SMELL like?
 - What does the behavior TASTE like?
 - What do other's report?
 - What does the person report?

PAINT A PICTURE!

49

49

Self-Injurious Behavior (SIB)

Definition

Involves any contact with an open hand to the head or neck with sufficient force that the contact typically can be heard at a distance of 15 feet or results in movement of his hair.

50

50



51

51

Target Behaviors

Off Task	vs.	On Task
Tardy	vs.	On Time
Profanity		
Noncompliance		
Verbal abuse		
Inappropriate sexual behavior		
Inappropriate touching		

52

52

Flatulence (Fart) Analysis

- ❖ Freep. Squeaky type of flatulence, as if a large amount of gas is struggling to get through a narrow opening.
- ❖ Boomer. Loud enough to be heard at least fifty feet away, with a duration from three to five seconds.
- ❖ Bubblic. Disgusting. The Wet Variety.
- ❖ SBD (Silent But Deadly).

53

Flatulence (Fart) Analysis

- ❖ SDB (Silent But Deadly) When a noise is heard it is a very characteristic "WHOOSSH" sound. This is a very sneaky type of flatulence and would be useful for battlefield conditions of fumigation.

54

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Measurement Criteria

- ❖ Cycle
- ❖ Episodic Severity

55

55

Measurement Criteria

Recording Cycle of the Behavior

Onset: What must OCCUR to say the behavior has STARTED?
Offset: What must OCCUR to say the behavior has STOPPED?

- ❖ Event Recording: At what point will we say that the Behavior / Event / Episode STARTS and STOPS?
 - Onset:
 - Scream for 5 continuous seconds.
 - First contact of fist to nose.
 - Failure to start within 5 seconds of 1st request.
 - Offset:
 - Screaming absent for 5 minutes.
 - Contact has ceased.
- ❖ Percent of Opportunity
 - Failure to Initiate / Non-Performance begins if fails to initiate the requested event within 5 seconds of the 1st request.
- ❖ Interval Recording

56

56

Episodic Severity

Definition

Episodic Severity is a measure of the intensity or gravity of a behavioral incident.

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57

Measurement Criteria

Episodic Severity Measures

How will the severity of AN EPISODE be measured?

- ❖ Duration: average and range
- ❖ Degree of severity rating
 - Based on categorical ratings of topographies
 - Profanity
 - Verbal Threat
 - Physical Threat
 - Property Damage
 - Physical Aggression
 - Etc.

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58

Episodic Severity Measures

(Continued)

- Based on categorical ratings of OUTCOMES
 - Attempted Hit (Missed)
 - Contact (No Injury)
 - Contact (Minor Injury – First Aid)
 - Doctors Visit
 - Staff out of work

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59

Episodic Severity Measures

(Continued)

- Based on severity scales
 - Frequency Per Episode?
 - Level 1 = 1 to 5 hits.
 - Level 2 = 6 to 10 hits.
 - Level 3 = 11 to 20 hits.
 - Level 4 = 20 to 40 hits.
 - Level 5 = More than 40 hits.
 - Degree of Public Nudity
 - Size of Bowel Movement

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60

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Level 1



61

61

Level 2



62

62

Level 5



63

63

Episodic Severity Measures

(Continued)

- ❖ Cost of repair or replacement: average and range
- ❖ Etc.

In addition to providing measurement criteria for quantifying the occurrence of the behavior, a complete description of severe and challenging behavior should also include the measurement criteria for quantifying the severity of each episode so that "episodic severity" can be evaluated during the course of treatment.

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64

64

A comparison of episodic severity vs. measures of severity over time

Outbursts

Baseline

Change Over Time

Frequency 10/week
Duration 10 hours/week

Episodic Severity

Avg. Duration 1hr/episode

Intervention

2/week*
4-hours/week*

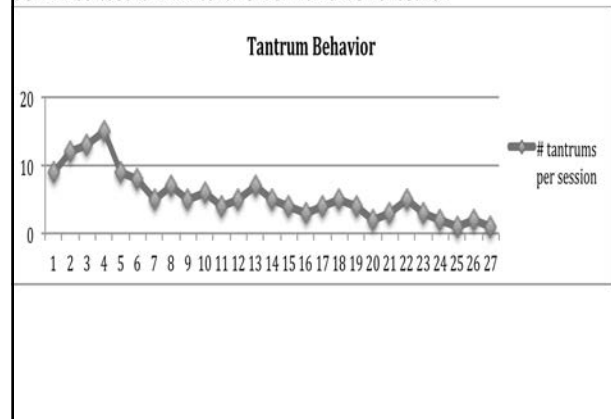
2hr/episode**

- * Improvement
- ** No Improvement

65

65

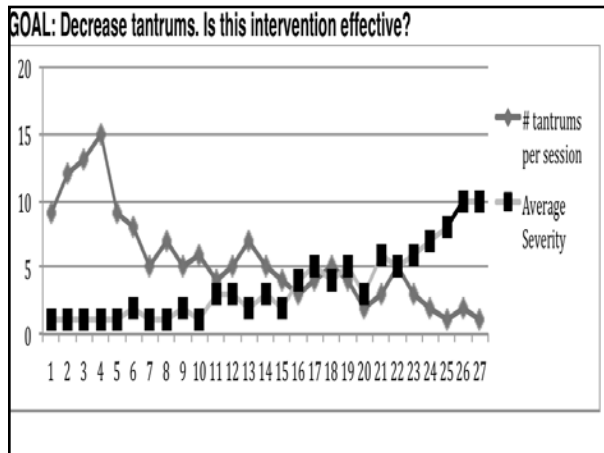
GOAL: Decrease tantrum behavior. Is intervention effective?



66

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67

Physical Aggression

	Baseline	Intervention
Change Over Time		
Frequency	10/month	3/month*
Episodes resulting in hospital trips	7 / month	3 / month**
Episodic Severity		
% of episodes resulting in hospital trips	70%	100%

* Improvement
** No Improvement

68

Property Destruction

	Baseline	Intervention
Change Over Time		
Frequency	10/day	7/week*
Repair costs	\$280/week	\$7/week**
Episodic Severity		
Average Repair Cost	\$4/episode	\$1/episode*

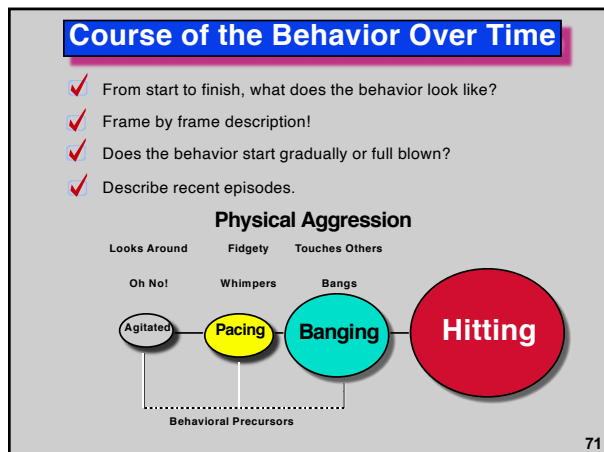
* Improvement
** No Improvement

69

Course - Progression of Behavior Frame By Frame Description

1. A description of the precursors to the behavior. Those behaviors that occur prior to the onset of the target behavior (TB).
2. A "frame-by-frame," real-time description of how the target behavior occurs from onset to offset.
3. A description of the post-cursors to the behavior.
4. A description of the other behaviors that occur along with the TB that were not included in the topography.

70



71

- Examples of Behavioral Precursors**
- "I'm running now!"
 - Head Down > Fiddles > Bolts
 - Paces > Pounds > Yells > Hits
 - Repetitive Question Asking
 - Spaced Out > Eyes Roll Up
 - "I'm Going To Hit You!"
 - Fixed Eye Contact For 30"
 - "You're Not My Mom"
 - Push Work Away > Head Down
 - Under Desk > Strip Naked

72

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In some instances there may be NO warning signs at all. The behavior may just START.

In some instances there may be NO gradual de-escalation. The episode may just STOP.

There may be multiple courses:

Mild
Severe

May differ depending on where and with whom.

73

73

Strength of Behavior

- ❖ Occurrence Over Time (How often does the behavior occur per unit of time?)
 - Rate per day / week / month
 - Number of hits per hour, aggression per week
 - Severity over time
 - Duration per hour / day / month
 - Number of items broken per day / week / month
 - % of Opportunities per day / week / month
 - % of Intervals per day / week / month
 - Where do we get this info?
 - current data/interviews/observations/records
 - KEEP YOUR OCCURRENCE CONSISTENT: ⁷⁴ baseline and progress should be in same measurement

74

74

Strength of Behavior

- ❖ Episodic Severity
 - Average duration of a tantrum (High and Low)
 - Average damage per episode (High and Low)
 - % of episodes that result in hospitalization
 - Percentage of episodes that exceed a “4” rating on the severity scale.
- ❖ Quality of Life Effects
 - How intense each episode is may have far more impact on a person’s quality of life than how frequently the behavior is occurring

75

75

Quality of Life Outcomes

- Living arrangement
- Freedom from restraints
- Frequent family contact
- Community participation
- Choice and control

76

76

History of The Behavior

Early days—no focus on hx, not important
Here and now!




What can history tell us?
Consequences that are not effective
How the bx started
Treatment of choice

VALUES:
if we are making person-centered plans...probably good to know who the person is and how they got to be where they are

77

77

History of the Problem Behavior

-  Determine the **RECENT** and **LONGTERM** history of the behavior.
-  Is **HISTORY** important? The **MYTH** of Unimportance. **The Here and Now!**
-  Implication of a good **HISTORY**.
 - Benefit of the doubt (Danny)
 - Origin of behavioral challenges (Gia)
 - Type of treatment strategy (school refusal)
 - Mediation improvement (Jake)

78

78

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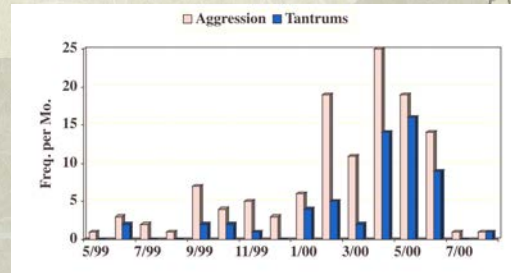
History of the Behavior Key Questions

- **When did the behavior first appear?**
- **The impact of a long history.**
 - More opportunity for reinforcement.
 - Greater habit strength.
 - Slower treatment progress.
 - **THE LONGER THE HISTORY THE LONGER IT MAY TAKE TO HELP THE PERSON GIVE IT UP**
- **Does the behavior cycle from high to low at regular intervals? *Historical Cycle?***
 - Self-injury and operant vomiting.
 - Cycling problems: psychiatric, menstrual, medical
 - Bi-polar
 - Schizophrenia
 - Anniversary events

79

79

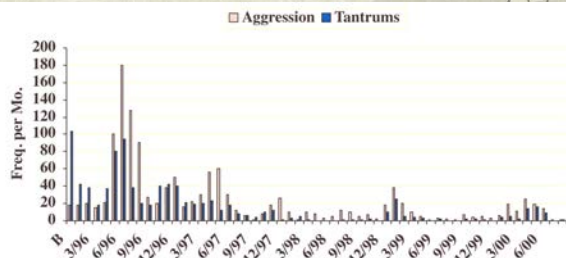
Tantrums/Aggression Chart



80

80

Tantrums/Aggression Chart



81

81

History of the Behavior Key Questions

- Have there been any recent **INCREASES** or **DECREASES** in the behavior?
 - May help identify reason for problem!
- Have there been any **SUDDEN CHANGES** in the person's life?
 - Changes in residence/
 - Change in school or bus schedule?
 - Daylight savings time?
 - Full moon
 - POSSIBLE SETTING EVENTS

82

82

History of the Behavior Key Questions

- Have there been any **UNIQUE UPSETTING** events?
 - Divorce?
 - Marital discord?
 - Loss of a loved one?
 - Sexual or physical abuse?
 - Financial problems
 - Loss of placement
 - Change that might be overall positive, but still a change to the flow of life
- History can reveal information that allow us to understand meaning of the behavior

83

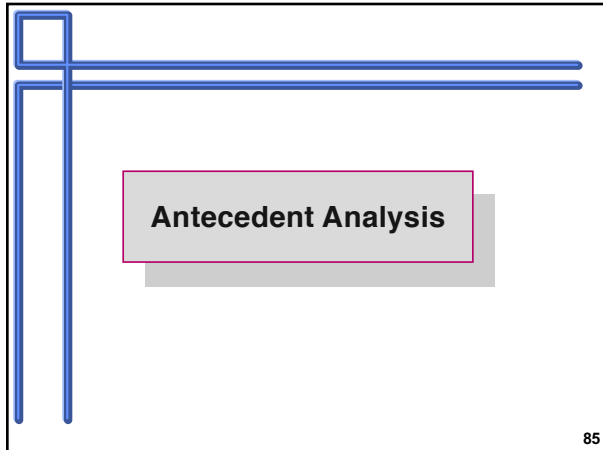
83



84

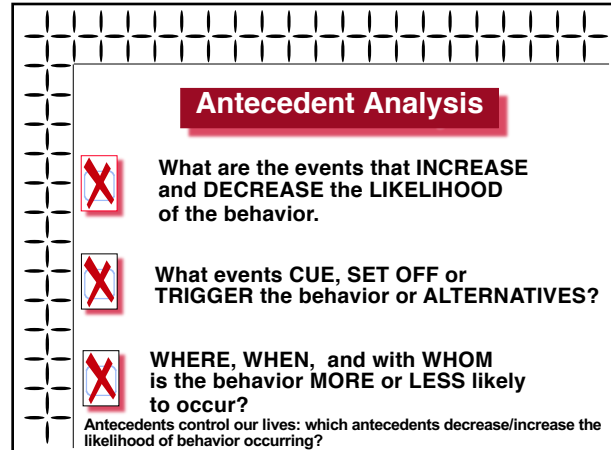
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Antecedent Analysis

85



Antecedent Analysis

-  What are the events that **INCREASE** and **DECREASE** the **LIKELIHOOD** of the behavior.
-  What events **CUE, SET OFF** or **TRIGGER** the behavior or **ALTERNATIVES**?
-  **WHERE, WHEN,** and with **WHOM** is the behavior **MORE** or **LESS** likely to occur?

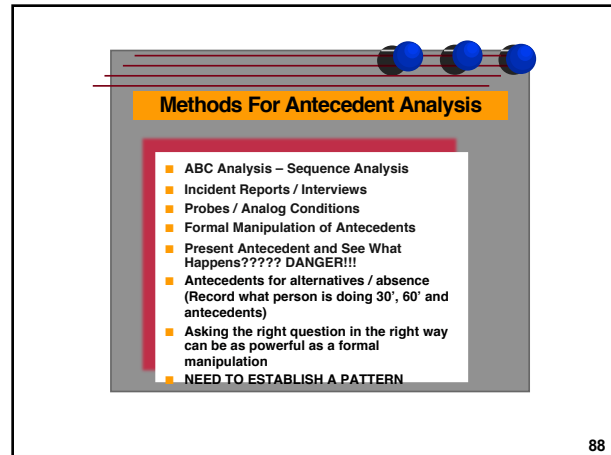
Antecedents control our lives: which antecedents decrease/increase the likelihood of behavior occurring?

86



Detective Work!

87



Methods For Antecedent Analysis

- ABC Analysis – Sequence Analysis
- Incident Reports / Interviews
- Probes / Analog Conditions
- Formal Manipulation of Antecedents
- Present Antecedent and See What Happens???? DANGER!!!
- Antecedents for alternatives / absence (Record what person is doing 30', 60' and antecedents)
- Asking the right question in the right way can be as powerful as a formal manipulation
- NEED TO ESTABLISH A PATTERN

88

Date & Time	Antecedent	Behavior	Consequences
	_____ came in very angry because, according to him, his "b____h mom yelled at him for no reason"	He had to be persuaded to do his morning work.	
	↑ WHAT'S THIS?? Events that occur long before the behavior that still impact the behavior occurring...	The afternoon was very good. He was very polite when he went to the office and earned computer time.	

89

Date & Time	Antecedent	Behavior	Consequences
4/23/13	On way to restroom	Student asked to use the restroom	
11:50 AM	On way to restroom OS called him "Fatsos"	Began cursing "F____ You." gave finger and threatened to kick OS's ass	Asked Student to ignore OS
	Returned to class after using bathroom	<ul style="list-style-type: none"> • Looking for OS • Called out for OS. Threatened to "kick his ass" 	I asked Student to come to class
	<input type="checkbox"/> I asked Student to come to class	He refused	Asked BS if Rod was around
	<input type="checkbox"/> Asked BS if Rod was around	Began to yell "No, no"	If you come to class you can talk to Rod
	<input type="checkbox"/> If you come to class you can talk to Rod	Became very angry, started yelling and kicking	I tried to open the door to get help
	<input type="checkbox"/> I tried to open the door to get help	He began kicking me. I had to hide behind my desk.	Rod entered the room.
	<input type="checkbox"/> Rod entered the room.	He began throwing the desks and saying "keep away"	Rod took him down

90


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Date & Time	Antecedent	Behavior	Consequences
5/24/13	Someone entered the room	Kicking me	<ul style="list-style-type: none"> • Took him down • Asked him if wanted to do this all day. He said "No." I eventually got off.
	I ignored him in TO.	He began slapping my thigh. I was next to him instructing.	<ul style="list-style-type: none"> • I said "you don't hit me. You can yell and scream all you want, but do not hit me." • I took him to TO.
	He got up and I told him to get himself under control	He got mad.	<ul style="list-style-type: none"> • He hit me and knocked a book out of my hand. • I took him down and told him to stay on the floor.
	Sat on him	He screamed and kicked at me as I walked toward him	<ul style="list-style-type: none"> • I told him to "stop" • I took him down and sat on him
		He screamed	<ul style="list-style-type: none"> • I told him if he stopped I would get off. I said I can do this all day. I'll sit on him all day if he wants.

91

Antecedent Analysis



Internal Events

- Organic Events
- Chemical Events
- General Health

External Events

- Places
- Persons
- Objects
- Time of Day, Week, Month
- Activities

Cognitive Events

- Attributions
- Perceptions (Injustice Done)
- Beliefs - Prejudice
- Catastrophic Thinking
- Voices Told Me

Have you ever worked with a person where the behavior is unpredictable or just comes out of nowhere?

92

Antecedent Analysis

Setting Events

Setting Events

- **Mood**
- Psychiatry
- Illness
- **Sleep**
- Constipation
- Medication Change
- **Earlier Argument**
- Financial Troubles
- Loss of Loved One
- Satiation (Big Meal)
- Time Change
- Full Moon

Triggers

A-----B-----C

- Direction
- Criticism
- Cut Off In Traffic
- Math
- Denial
- Being Ignored
- Person
- Place

If we can understand/identify the events that INCREASE or DECREASE the likelihood of a behavior, we can start to use antecedent control effectively

93

INTERNAL ENVIRONMENT

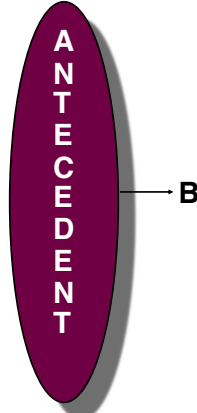
(What internal events INCREASE or DECREASE the LIKELIHOOD of the behavior?)

1. General Health
2. Feelings of WELLNESS
3. Pain
4. Sleep Deprivation
5. Chemical Environment
 - a. Type
 - b. Dosage
 - c. Schedule
6. The Feeling of Anxiety.

<state dependent learning>

How do these things influence you?

Self Control / Adaptive Skills / Behavior



94

EXTERNAL ENVIRONMENT

1. WHERE? What places - settings - locations INCREASE or DECREASE the LIKELIHOOD of the BEHAVIOR?

If I want him to hit me, where should we go?

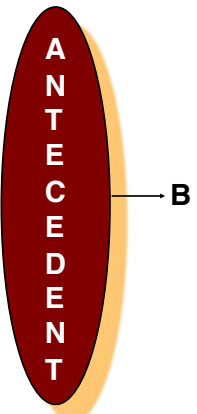
If I DON'T want him to hit me, where should we go?

 - a. Home vs. School
 - b. Home vs. Community
 - c. Classroom A vs. Classroom B
 - d. Playground vs. Classroom
 - e. Bathroom Only

"Why does it occur in THAT place?"

"Why doesn't it occur in THIS place?"

Bathing example



95

EXTERNAL ENVIRONMENT

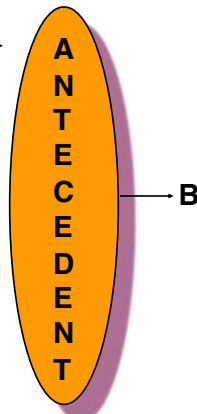
2. Whom? (People) With WHOM are the behavior(s) MORE of LESS LIKELY to occur?

Any characteristic on which we discriminate one person from another can be an antecedent.

 - Sex (MG)
 - Age
 - Race
 - Physical Characteristics
 - Personality Characteristics
 - Attitude (Doesn't Like Person)
 - Philosophy

"If I was in her class, I would hit her too!"

Big guy example



96

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EXTERNAL ENVIRONMENT

3. When? (Time) *WHEN* are the behavior(s) *MORE* of *LESS* *LIKELY* to occur?

- Time of day, week, month
- Bedwetting at 5:30 AM
- Aggressive at 6:00 PM before meals
- Explore events at these times.
- Scatter Plot Method - Paul Touchette

Knowing the time may lead to the place or event or characteristic that acts as trigger.

**A
N
T
E
C
E
D
E
N
T**

B

97

97

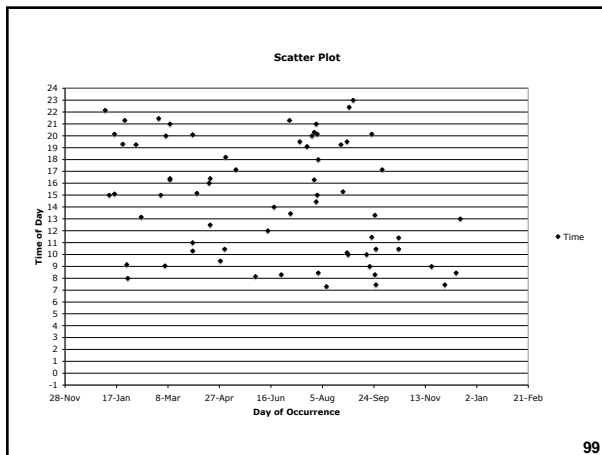
Aggression Scatter Plot Example

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Am 6							
7		x					
8							
9							
10							
11							
12							
Pm 1							
2							
3	xxxx	xxx	xx	xxx	xxx		
4	xxxxxx	xxxx	xxxx	x	xxx		
5		xxx	xxxx	xx	x		
6		x	xx	xxx	xx		
7							
8		x					
9							
10							
11							x
Am 12							

What would we want to ask given this kind of a pattern?

98

98



99

EXTERNAL ENVIRONMENT

4. What? (Events / Activities) *What specific events INCREASE or DECREASE the LIKELIHOOD of the BEHAVIOR(S)?*

If I want him to hit me, what would I have to do? Top 10?

If I DON'T want him to hit me, what would I have to do? Top 20?

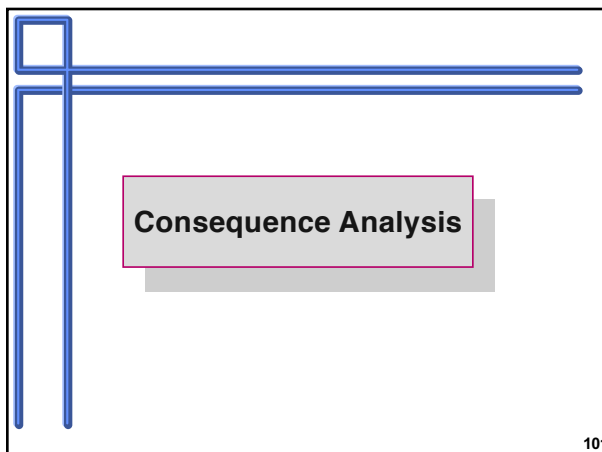
- Demands vs. Requests
- Math vs. History
- Interactions (dignifying or not)
- Teasing / Criticism / No / Evil Eye
- Enter Personal Space
- Noise vs. Quiet
- Number of Persons in Room
- Five math problems vs. 10
- 15 minute task vs. 30 minute
- Do your math! Would you please _____?
- Tour at center-based program
- Take 2—I want to play not learn sharing
- Look at the ABCs, Logs

**A
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C
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D
E
N
T**

B

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100



101

The Purpose(s) of the Consequence Analysis

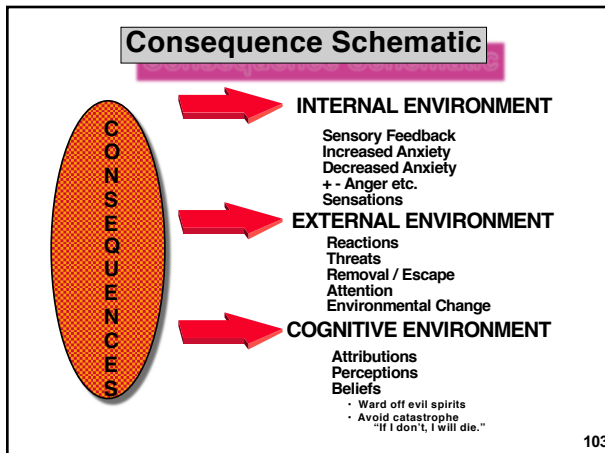
- Identify events reinforcing the problem behaviors.
- Identify events punishing desirable alternative behaviors.
- Identify events / reactions that escalate / resolve the behaviors.
- Identify and evaluate previous treatment strategies.

102

102

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Examples of Internal Consequences

BEHAVIOR	CONSEQUENCE
Hyperventilation	Dizzy
Holds breath	Dizzy
Taking Drugs	High
Bites Finger Nails	Escape anxiety
Excessive Alcohol Use	Reduces stress
Masturbation	Relieves pain
Genital Manipulation	?????
Assaults	Feels good
Eating	Reduces discomfort
Self stimulation	Relieves stress / anxiety
	Relaxing
	Relieves stress / anxiety
	Visual feedback
	Relieves stress / anxiety

Head-banging → vibratory sensation... vibrating pillow as alternative
Rectal digging → people put clothing on that prevents... but what if its constipation? INTERNALLY MAINTAINED BEHAVIORS

104

103

104

How do you know that a behavior is maintained by INTERNAL EVENTS?

- Occurs when alone
- Occurs when alone or with others
- Not related to distinct external triggers
- Not effected by external consequences
- Resolves when similar stimulus is applied
 - Sensory Diet
 - Perceived Sensory Stimulus
 - Vibrator
 - Availability of Food
 - Gum

Be cautious of over-attributing sensory/internal function to people with autism—common misattribution leading to ineffective treatment

105

Key Questions In The Consequence Analysis

❖ How Do People React When The Behavior Occurs? - Ignore → - Walk Away → - Yell → - Give In →	❖ What Is The Immediate Effect On The Behavior When People React? - Screams Louder - Grabs / Screams - Smiles and Stops - Behavior Stop
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MOMENTARY MOTIVATION FOR THE BEHAVIOR

WHAT ARE THE LONG-TERM EFFECTS OF REACTIONS? 106
Worsen? Improve? Remain Same?

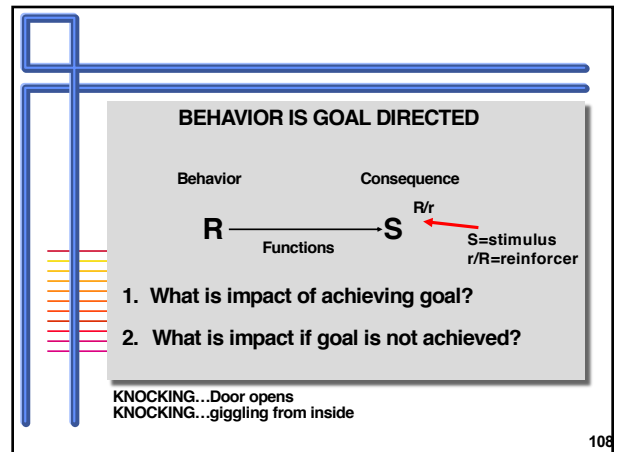
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106

Key Questions

Force Him to Participate	>	Behavior Escalates
Ignore Behavior / Work Through	>	Behavior Continues / Escalates
Let Him Leave Task	>	Behavior Stops
Give Preferred Activity	>	Behavior Stops
Give Him a Choice	>	Behavior Stops
Clear Area of Materials	>	Reduced Likelihood of Pd
Negotiate Alternative "One More Problem!"	>	Stops Escalation if Not Too Escalated
Give Choices That End Task	>	Stops Escalation
Lower Task Difficulty	>	Stops Behavior 90% of Time

107



107

108

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Consequence Analysis

Understanding the consequences for behavior help understand what is **gained** by the behavior??

Attention? Young man with “aggression”

- Come Closer
- Everyone Looks
- Hug/Touch/Restraint
- How High People Can Jump
- The Environment Changes
- Change Reaction

Gets Labels From Clothing—once he has the tag, it’s over!
Doesn’t get the tag...escalates!

What do you do? He remembers the shirts he has de-tagged.
He accepts being given tags...staff are surviving but what about visitors???

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109

Consequence Analysis

What do you do? He remembers the shirts he has de-tagged
He accepts being given tags...staff are surviving but what about visitors???

What do we do?
STIMULUS SATIATION

- Garment district...explain what we do, get tags!
- Got boxes and boxes and boxes of tags
- Put them out around in the environment
- Dove into the box

AFTER THAT NEVER WENT AFTER OTHER TAGS
Always had tags in his pockets in the community

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110

Consequence Analysis

What is Being Escaped or Avoided by the Behavior??

Demand Removed / Parent Leaves

- Sent to Time Out
- Takes a Break

Relieves Feelings of Stress/Anxiety

- Doesn't Have to Do _____
- Radio is Turned Down
- Boring Task is Removed
- Leave Alone
- Nagging Person Leaves or Quits Nagging

Escape Swings – Little girl runs 2 houses down
Swing collapse

Avoid swing...yard...door...front yard
Cope with swinging

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111

What Programs Have Been Used To Manage Behavior?

- What Programs Have Been Effective?
- What Programs Have Failed?
 - ◆ Why?
 - ◆ Implementation Issues?
 - ◆ Rules of Good Contingency Management?
 - ◆ Ever Implemented?
 - ◆ Consistency?
 - ◆ Client's Cognitive Ability / Understanding?
 - ◆ What Programs Have Failed?

112

112

Some Rules of Reinforcement

EVERY PROGRAM HAS A METHODOLOGY

- Meaningfulness to the person served
- Contingency of Reinforcement – person knowing the rule
- Deprivation / Satiation
- Immediacy of Reinforcement
- Frequency of Reinforcement
- Amount of Reinforcement
- Amount of Work Required – too much work, might not work!
- Reinforcer Novelty
- Reinforcer Variety
- Reinforcer Sampling Rule (Exposure)
- Competing Contingencies
- Schedules of Reinforcement
- Size of DRO Interval
- Tangible Monitoring System for DRL
- Concrete Presentation
- And So On

113

113

Ecological Analysis: Purpose

- Comes from the background, where they lived, worked, how things are done, level of service, etc.
- Trying to identify if there is a mismatch leading to the challenging behavior
- Identify mismatches between the person and some aspect of the ecology and repair it to decrease challenging behavior
- That may contribute to the behavior challenge and / or detract from the person's quality of life.
- MISMATCH IN THE PERSON'S LIFE
- Where do we get this information? change slide

114

114

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Overview of Functional Assessment

<p>Referral Information</p> <p>Description Of The Person</p> <ul style="list-style-type: none"> Physical Characteristics Likeability Cognitive Abilities Communicative Abilities Motor / Perceptual Abilities Self-Care Skills Social Skills Community Skills Domestic Skills Leisure / Recreation Skills <p>alone/unstructured leads to problems—no skills to occupy so the behavior asks "what now?"</p>	<p>Other Background Information</p> <ul style="list-style-type: none"> Family History and Background Living Arrangement—sensitive to noise living next to nightclub Program Placement Health and Medical Issues History of Treatment <p>Functional Analysis of Behavior</p> <p>Mediator Analysis</p> <p>Motivational Analysis</p>
--	--

115

Physical Factors
Interpersonal Factors
Programmatic Factors

■ Label the mismatch, identify the fix

116

115

116

Analysis of the Function / Meaning of the Behavior

From The Person's Perspective

117

Analysis of Meaning / Function

118

117

118

Functions / Meaning of Behavior

From the Person's Perspective

<p>Communication</p> <ul style="list-style-type: none"> Go Away! I Want. I'm Confused <p>Acquire / Obtain</p> <ul style="list-style-type: none"> Food (I'm really hungry.) Attention ("Please talk to me!") <p>Escape / Avoid</p> <ul style="list-style-type: none"> Demand ("Don't talk to me that way!") Loud Noise Task ("It's too hard!") 	<p>Increase / Decrease Sensory Stimulation</p> <ul style="list-style-type: none"> Tactile / Vibration Intense Smell Lights Flickering <p>Manage Negative Emotions</p> <ul style="list-style-type: none"> Anger at Being Touched Anxiety Around Loud Noise Anger at Criticism <p>Social Interaction</p> <ul style="list-style-type: none"> Greeting Play <p>Neurological / Psychiatric</p>
--	---

119

FUNCTIONS OF BEHAVIOR

Traditional	Person-Centered
Attention Seeking	-To interact with others
Escape/Avoidance	-To prevent an upsetting situation
Tangible	-To communicate a want or need for an item
Automatically Reinforcing	-To fulfill my sensory needs independently -To express emotions/relieve stress

120

119

120

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The Inferential Leap HYPOTHESIZED FUNCTION

- Jesse's SIB
 - ◆ FUNCTION: Attention
 - ◆ Message: Don't leave me! I don't know if you're ever coming back!
- School refusal
 - ◆ FUNCTION: Escape
 - ◆ Message: "I'm terrified of dogs"

121

121

The Inferential Leap

- Gia's glass breaking
 - ◆ FUNCTION: Attention/Escape
 - ◆ Message: This is the only guarantee I have that anyone will help me or interact with me
- Jake's aggression
 - ◆ FUNCTION: Attention/Express Emotions
 - ◆ Message: Everyone in my life disappears—I can't stand to lose you, too!
- Hypotheses tested in treatment

122

122

Analysis of the Meaning of Behavior

- Implications—what do you do?
 - ◆ Teach better ways of communicating
 - ◆ Teach better ways of reducing stress, anxiety, frustration
 - ◆ Teach better social/play
 - ◆ If the skill is absent - teach it
 - ◆ If the skill is present but underutilized - increase its use
 - ◆ Neurological Consultation
 - ◆ Specialist in Treating PTSD

123

123



124

124

Stimulus Control

Definition

In the presence of certain stimuli, the behavior is more or less likely to occur.

125

125

Examples of Stimulus Control

- Telephone rings >>>> ■ Answer the phone
- 11AM >>>>>>>>>>>> ■ Look for mail
- Take off clothes >>>> ■ Back of the public bus
- Stop sign >>>>>>>>> ■ Stop
- Question >>>>>>>>>> ■ Answer the question
- 8 PM >>>>>>>>>>>> ■ Telephone appointment

126

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Stimulus Control Variations

Establishing Stimulus Control
Positive Programming

Antecedent Control
Focused Support Strategy

Fading / Transfer of Stimulus Control

127

Establishing Stimulus Control: Method

A -----> B-----> C

Condition 1: Reward

Sd -----> R -----> S⁺
Reward

Condition 2: Extinction

Sd -----> R -----> S^{x+}
No Reward

Bell > run around the class, have fun, visit your neighbors.

128

Establishing Stimulus Control: Counseling Time

129

Establishing Stimulus Control Examples

- Masturbation
- Self Injurious Somersaulting
- Talk Time
- Breaks in Classroom
- Sucking Thumb - A Time and a Place
- Taking Off clothes
- Bizarre / Psychotic talk
- Compulsive Coffee Drinking
- Obsessive Compulsive Hand-washing
- Obsessive Compulsive Retracing
- Running Time

130

Implementation Issues

- **Choice of Target Behavior**
 - Perseverative Behaviors (High-rate stereotypic behaviors, some problematic verbal and sexual behaviors)
 - Don't establish stimulus control over dangerous, damaging behaviors. In those instances, Use antecedent control (e.g., punching bag...maybe).

131

Implementation Issues

- **Selection of the Reinforcer**
 - Mostly intrinsic (i.e., occur as a function of engaging in behavior)
 - Sometimes need extrinsic reinforcer to get started.

132

Antecedent Control Strategies

- Used With Very Serious Behaviors
- Involves:
 - ◆ Identification of stimulus conditions where behavior does and does not occur through an "Antecedent Analysis".
 - ◆ Use of this information to insure the absence of the problem behavior.

133

Examples of Antecedent Control

- Finger / Finger / Throw When Criticized
- Only Hits Large Men
- Does Not Assault Women
- Only Misbehaves in Mrs. Brown's Class
- Refuses When Forced; Not When Asked
- Lurches At Door When Open
- Spits When Closer Than 2 Feet
- Property Destructive & Setting Table
- Misbehaves When In Back Of Class
- Shoots At You When Give Finger
- Assaults When You Say "Better Not"

134

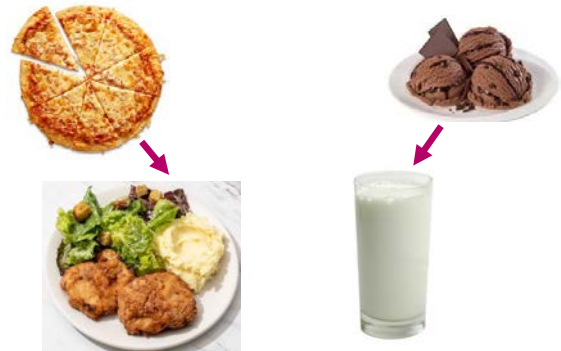
Transfer Of Stimulus Control



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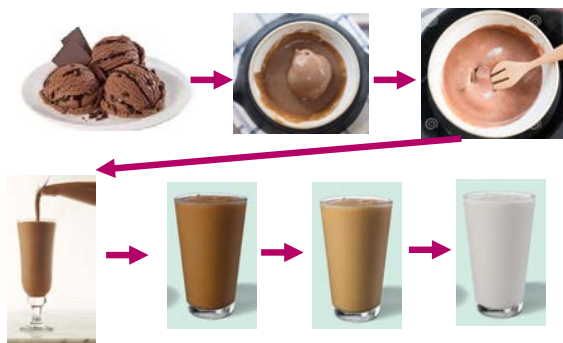
STIMULUS CONTROL TRANSFER



136

136

STIMULUS CONTROL TRANSFER



137

137

STIMULUS CONTROL TRANSFER



138

138

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Stimulus Satiation

- The continuous and noncontingent availability of the identified reinforcer maintaining the undesired behavior
- thereby weakening its effectiveness and reducing the rate of the defined behavior

139

Satiation



140

140

Examples

- | | |
|--------------------------|-----------------------|
| ■ Pica | ■ Scavenging |
| ■ Seeking person | ■ Breaks |
| ■ Tantrums for Attention | ■ Getting a drink |
| ■ Peeping | ■ "Go home, go home!" |
| ■ Hoarding bouncy balls | ■ Chewing on clothing |
| ■ Stealing Cars | |

141

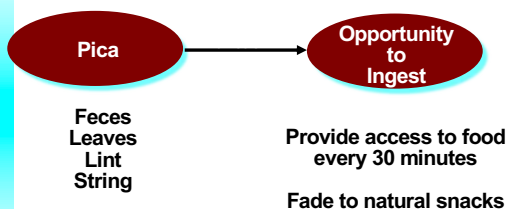
Pica

- Young man (JS) eats feces, grass, leaves, lint, food, dust bunnies.
- Discrimination Test
- Incidents occur about every 45 minutes.
- Assessment established preferences through structured access every 30 minutes.
- Behavior maintained by opportunity to eat.
- Provide access to food about every 30 minutes.
- Fade to natural times to eat.
- Incidents of Pica decreased dramatically.

142

Pica

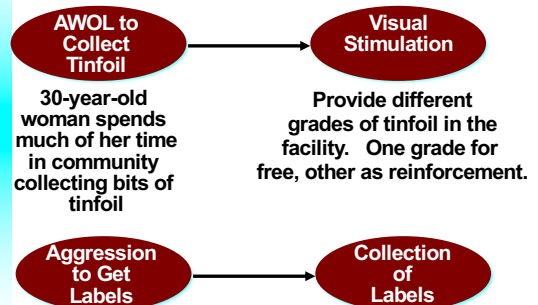
The Consumption of Inedible Substances



1. Determine ability to discriminate.
2. Determine free access - satiation level.
3. Determine IRT

143

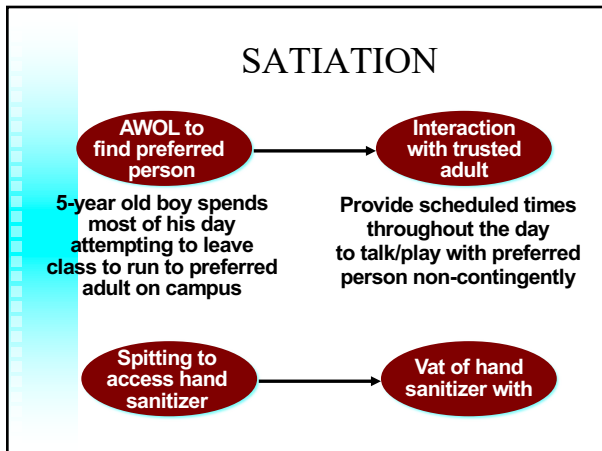
Hoarding and Scavenging



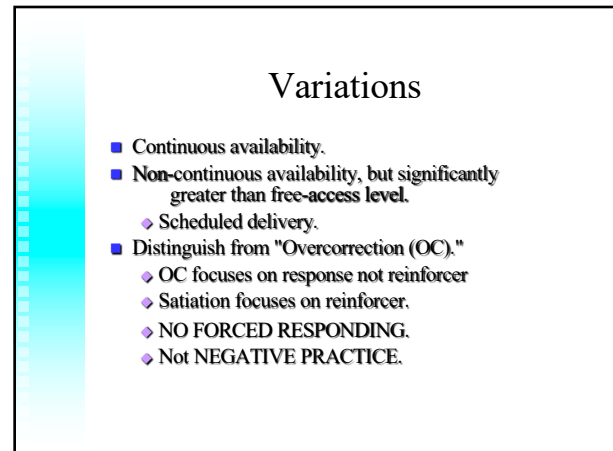
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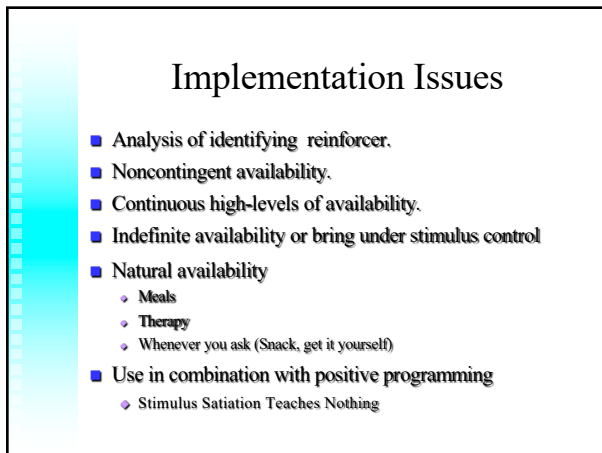
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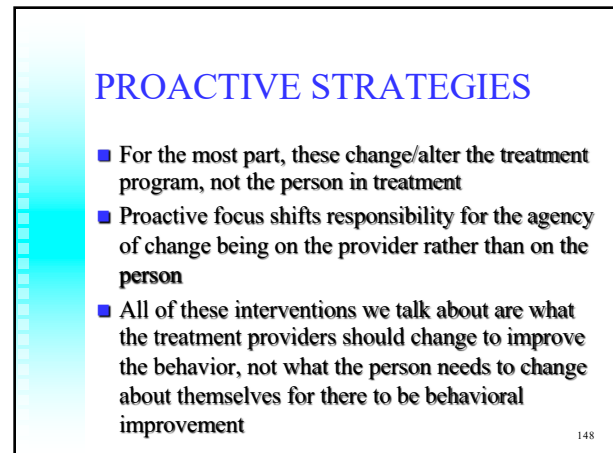
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146



147



148