Behavior Assessment and Interventions for Problem Behavior, Considerations for Students with ASD

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Basic Principles of ABA

- Defines behavior in objective and measurable terms: Behavior is physical
- Examines the relationship between behavior and what happens in the environment
- Is concerned with socially significant behavior

Operant Analysis

- Three term contingency

Antecedent Behavior Consequence

(A) (B) (C)

- Antecedent that precedes behavior as well as consequence that follows behavior
- Helps predict what student will do in the future

Reinforcement

Two Sources of Reinforcement

- Consequences that increase the probability of behavior can be delivered by:
  1. People (socially mediated reinforcement)
  2. Behavior can produce reinforcing results without the involvement of other people (automatic reinforcement)

Two Types of Reinforcement

- **Positive**: things get better because something is added to the environment after the behavior, the behavior is more likely in the future - ADDITION of stimuli
- **Negative**: things get better because something is taken away in the environment, the behavior is more likely in the future - SUBTRACTION of stimuli

Reinforcement

- Positive Reinforcement – something is added or gained that *increases* the probability of the behavior occurring again.
- Negative Reinforcement – something is removed or avoided that *increases* the probability of the behavior occurring again.
- ****Remember**, if you see the term "reinforcement" then behavior will be likely to happen again: reinforcement always increases the future probability of some behavior

Positive and Negative Reinforcement

- As a result of positive reinforcement some improvement in conditions occurs
- As a result of negative reinforcement some worsening of environmental conditions is avoided

Basic Behavioral Principles

Antecedent - any stimulus that happens *before* a behavior

Behavior - an observable and measurable act of an individual

Consequence - any stimulus that happens *after* a behavior

Examples of Three Term Contingency

- "Touch nose" – Child touches nose – receives piece of cookie
- "Do Puzzle" – Child falls to floor – Demand withdrawn

Consequences

- After a behavior has occurred the environment can change in several ways:
  1. A neutral event can happen: if nothing happens that is relevant, the consequence will likely have no effect on the behavior.
  2. Things can get better: if things get better, the behavior will likely occur again under similar conditions. This is called reinforcement.
  3. Things can get worse: if things get worse, the behavior will likely not occur again under similar conditions. This is called punishment.

Things Get Better: Reinforcement

- Reinforcement is a change in the environment following a behavior that increases the future probability of that behavior under similar circumstances.

Things Get Worse: Punishment

- When things get worse following a behavior, the behavior is less likely to occur in the future under similar circumstances. This is punishment.
- Punishment decreases the likelihood of behavior; Reinforcement (including negative reinforcement) increases behavior.

Using the principles of ABA to reduce problem behavior

Define Behavior----Be Specific!!

Kicking his feet against the chair, throwing books, biting his own fingers, hitting his head with his fist.

NOT: Having a tough time, frustrated, irritable

Examine Setting Events

- Aspects of a person's environment or daily routine that do not necessarily occur immediately before the behavior.
  - Medication adjustment
  - Medical problems (pink eye, diaper rash)
  - Time of day the behavior occurs and doesn't occur
  - Physical setting (classroom, computer class, on playground, in bathroom, upon entry)
  - Activities (what types of activities trigger behavior and when does it never occur)
  - Sleep problems
  - Eating routines/diet
  - Number of people in room
  - Daily schedule (how predictable/how much choice)

Pick one or two target behaviors

- Select the target behavior to be reduced by examining…
  - The seriousness of the behavior…if behaviors could cause injury to self or others…target these before behaviors such as hand flapping or poor attention.
  - Next look at high frequency behaviors that interfere with learning of the student and others.

Immediate Antecedents

- What happens right before the problem behavior occurs.
  - Computer software wouldn't work
  - Told to hang up his coat
  - Behavior occurred during free play
  - Recess whistle was blown by the teacher
  - Asked to name something blue
  - Math worksheet presented
  - Student was alone—antecedent unknown

Consequences

- Any behavior that occurs repeatedly is serving some useful function and producing some type of reinforcement.

Consequences

- Reinforcement
  - A consequence that results in increasing or maintaining the future rate of behavior it follows.

Punishment

- A consequence that results in decreasing the future rate of behavior it follows.

Functions of Problem Behavior

Socially Mediated

- Positive Reinforcement: Attention/Access to Tangibles
- Negative Reinforcement: Escape

Automatic

- Positive Reiforcement: Sensory Stimulation
- Negative Reinforcement: Pain Attenuation

Take Data To Identify the A, B, and C

- Without taking baseline data on frequency and identifying the antecedent, behavior, consequence, and hypothesizing function it is not wise to implement a behavior reduction strategy.
- A formal functional analysis may also be warranted under the guidance of a BCBA.

Is Time Out a Reinforcement or a Punishment?

- Need to look whether time out is increasing or decreasing the frequency of the target behavior.
- Most people think Time Out is a punisher but it functions as a reinforcement for many children.

Why do children (and all humans) engage in problem behavior?

- To obtain something desirable (Attention, Tangibles, Sensory Stimulation).
- To avoid or escape something undesirable (Task avoidance).

Antecedent Interventions

- Changing the environment before the behavior occurs to prevent the behavior.

Reconfigure class layout or ratio
Give more or less time at a center
Get more sleep at night or nap
Eat breakfast or serve snack
Prompt the correct response first

Antecedent Interventions (cont)

- Shorter tasks/Easier work
- More Help from Teacher
- Choices of activities/reinforcers
- Mand Training
- Teach student to ask for help/break
- Teach student hand raising or tapping on shoulder to gain attention

Reactive Interventions

- Interventions implemented after problem behavior occurs.

- Some examples:
  - Count and Mand (use for attention only)
  - Planned Ignoring (use for attention only)
  - Time Out (use for attention only)
  - Work through Demand (use for escape only)

If you find yourself using reactive interventions frequently

- You need to continue to take data or re-start data taking to determine setting events, antecedents and functions of target behavior
- Your demands might be too high
- The environment might need to be changed

Immediately Reinforce New/Improved Behaviors

- While using antecedent and reactive interventions to bring down target behaviors, you want to increase positive behaviors.

Case Studies

- Case Study # 1
- Sam is a first grade student with moderate autism and is included for homeroom and specials but spends the majority of his day in a VB Project classroom. When in music or art class when there is a lot of "teacher talk," Sam begins to make noises. When his 1:1 aide tells him to be quiet, he scratches and hits the aid. When he escalates to this level, the aide removes him from the inclusive classroom and takes him back to the ASD room for a "sensory break." He is removed from every special before it is over. As soon as he gets out in the hallway to go back to the ASD classroom, Sam calms down and smiles.

Case Study Questions

- What might be a setting event?
- What is the immediate antecedent?
- What is the behavior?
- What is the consequence?
- Does the consequence serve as a Reinforcer or Punishment?

Case Study #1 (cont.)

- Will the behaviors likely go up or down?
- What is the most likely the function of Sam's behavior?
- What are some interventions you would recommend to help reduce Sam's negative behavior

Behavior Management/Reduction of Problem Behaviors

Prevention is the most important step that should be taken.

Prevention starts with effective instruction and careful use of motivation strategies.

Busy kids who are having fun and learning generally do not present behavior problems.

Three Procedures to Reduce Behavior

- Eliminate the Motivative Operation
- Terminate the behavior's reinforcement contingency: extinction
- Replace the behavior with an alternative response: teach via differential reinforcement

Extinction

Reinforcement of a previously reinforced behavior is discontinued and therefore, rate of responding is reduced or eliminated.

Extinction can evoke problem behavior.

Along with reduction of MO and punishment, one of three ways to reduce probability of behavior.

Behavior Reduction

- Procedures based upon assessment of controlling variables
- Treatment includes manipulation of antecedents as well as consequences
- Replacement behaviors or functional equivalents are taught directly in most cases

Problem behavior maintained by socially mediated positive reinforcement

Use Noncontingent Reinforcement (reduce the MO)

Use extinction: do not allow the problem behavior to result in reinforcement

Replacement behavior: teach the child to ask for what they want (mand training)

Problem behavior maintained by socially mediated negative reinforcement

- Reduce aversiveness of commands; make demands easier and compliance more reinforcing
- Do not allow escape, extinction through guided compliance
- Teach alternative behaviors to ask for a break or removal of the demand.

Problems maintained by automatic reinforcement

- Noncontingent stimulation: Iwata has shown that keeping children busy reduces self injurious behavior. Also medical interventions.
- Extinction: block response, protective equipment when needed.
- Provide replacement behavior with functional equivalent (sensory stimulation: "sensory diet"; chew toy for mouthing, etc)

Behavior Support Plans

- Should contain:
  - Definition of target behavior
  - Procedures to reduce the motivation to exhibit the maladaptive behavior
  - Place the maladaptive behavior on extinction
  - Differentially reinforce the replacement behavior
  - Teach the replacement behavior intensely and practice it often

Thank You

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