

Function-Based Approach to Assessment and Treatment of Challenging Behaviors

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Disclosures

Eric Boelter has no financial relationships with an ineligible company relevant to this presentation to disclose.

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Objectives

Gain knowledge of Function-Based Approach (FBA) process.

Gain knowledge of the Functional Analysis process.

Gain understanding of Function-Based treatment.

Science of Behaviorism

Behavior is a function of interaction between environmental events and the individual's responding.

Behavior is lawful, predictable, and able to be brought under environmental control.

These events may occur prior to behavior (antecedent events).

They may occur following behavior (consequences).

Applied Behavior Analysis (ABA)

The process of:

Applying principles of behavior (e.g., reinforcement) to specific behavior.

Evaluating whether any changes that occur are indeed due to this application (single-case design).

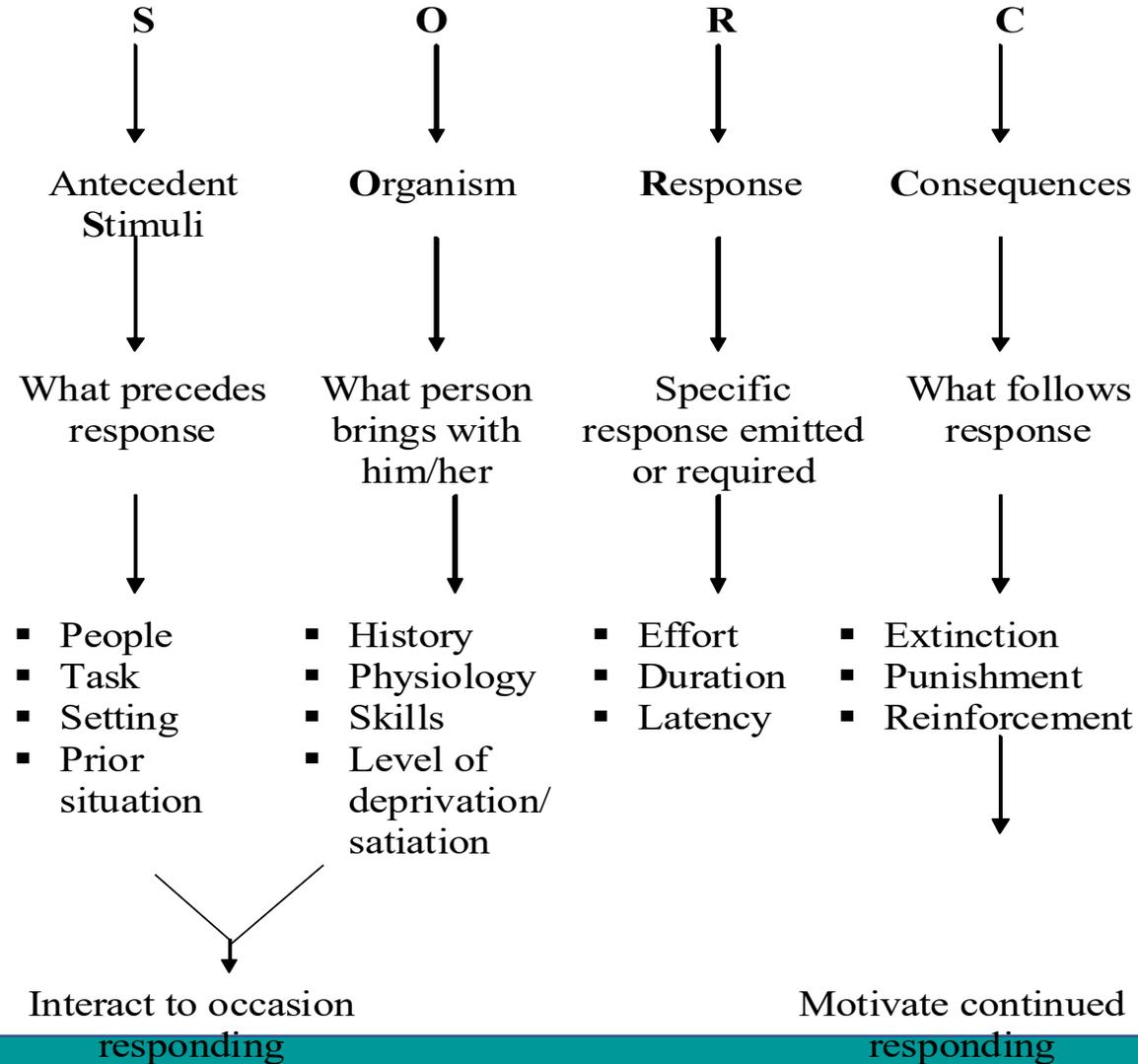
Change socially significant behavior to a meaningful degree (significant to people).

Baer, Wolf, & Risley, 1968

Categories of Consequences

	POSITIVE	AVERSIVE
PRESENT	<p>POSITIVE REINFORCEMENT (BEHAVIOR INCREASES)</p>	<p>PUNISHMENT BY PRESENTATION (BEHAVIOR DECREASES) TYPE I</p>
REMOVE	<p>PUNISHMENT BY WITHDRAWAL (BEHAVIOR DECREASES) TYPE II</p>	<p>NEGATIVE REINFORCEMENT (BEHAVIOR INCREASES)</p>

Environmental Influences on Behavior



Function

The reason why problematic behavior continues to occur.

Treatment is based on identified function, not on topography.

Maintaining Events or Functions

Positive Reinforcement: A “gain” function

Social attention, tangibles, preferred items

Negative Reinforcement: An “escape” function

Escape from nonpreferred activities

Automatic Reinforcement: Unknown or Intrinsic (gain or escape)

Gain sensory pleasure

Escape pain or discomfort (bx of scratching removes the itch)

Function

Bx: Banging head on floor

- He bangs his head b/c he has intellectual deficits.

OR

- He bangs his head b/c school staff stop presenting task demands to him.

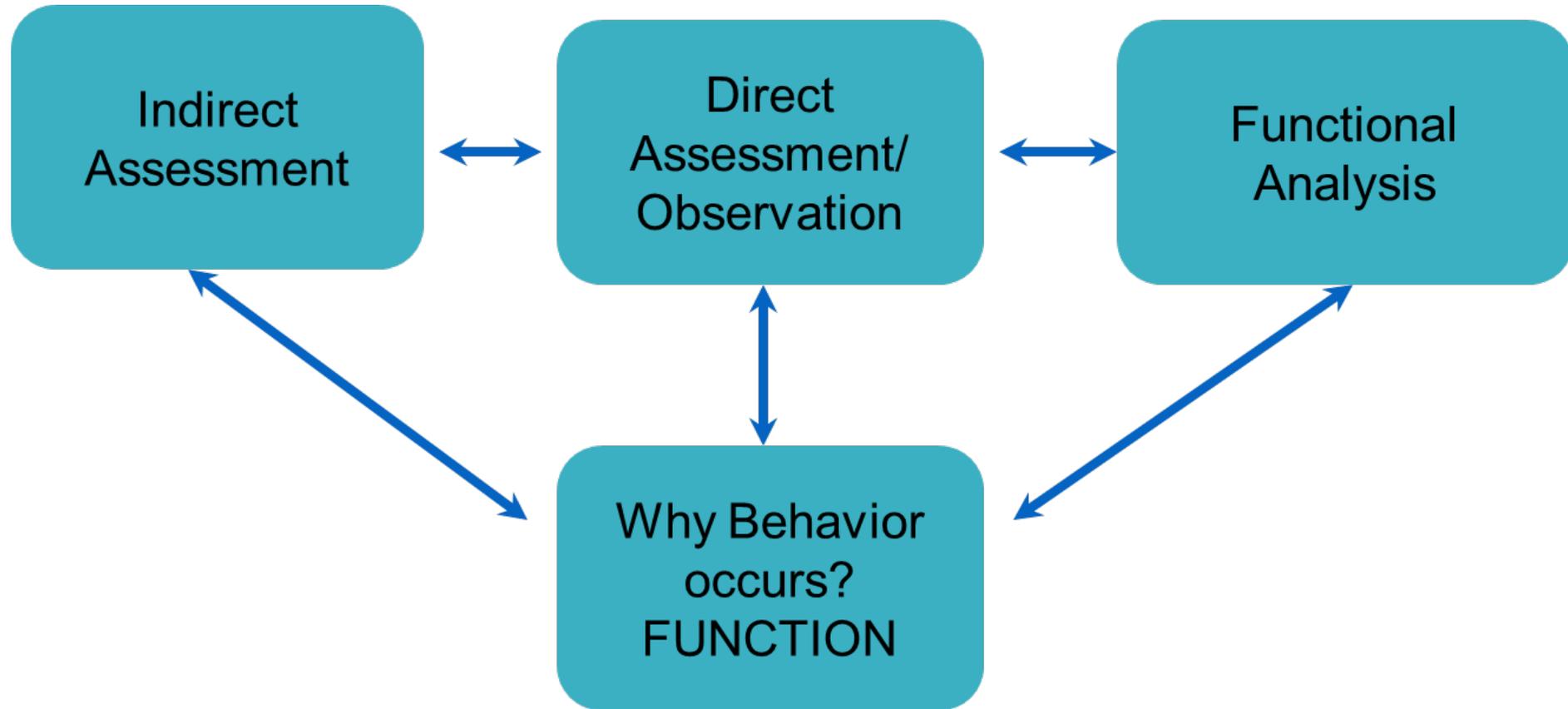
What is a Functional Behavioral Assessment?

Problem solving approach that uses a variety of assessment procedures to identify the function for the occurrence of behavior.

Goal is to develop positive behavioral supports that reinforces appropriate behavior while reducing inappropriate.

Gresham, Watson, & Skinner (2001)

Functional Behavioral Assessment

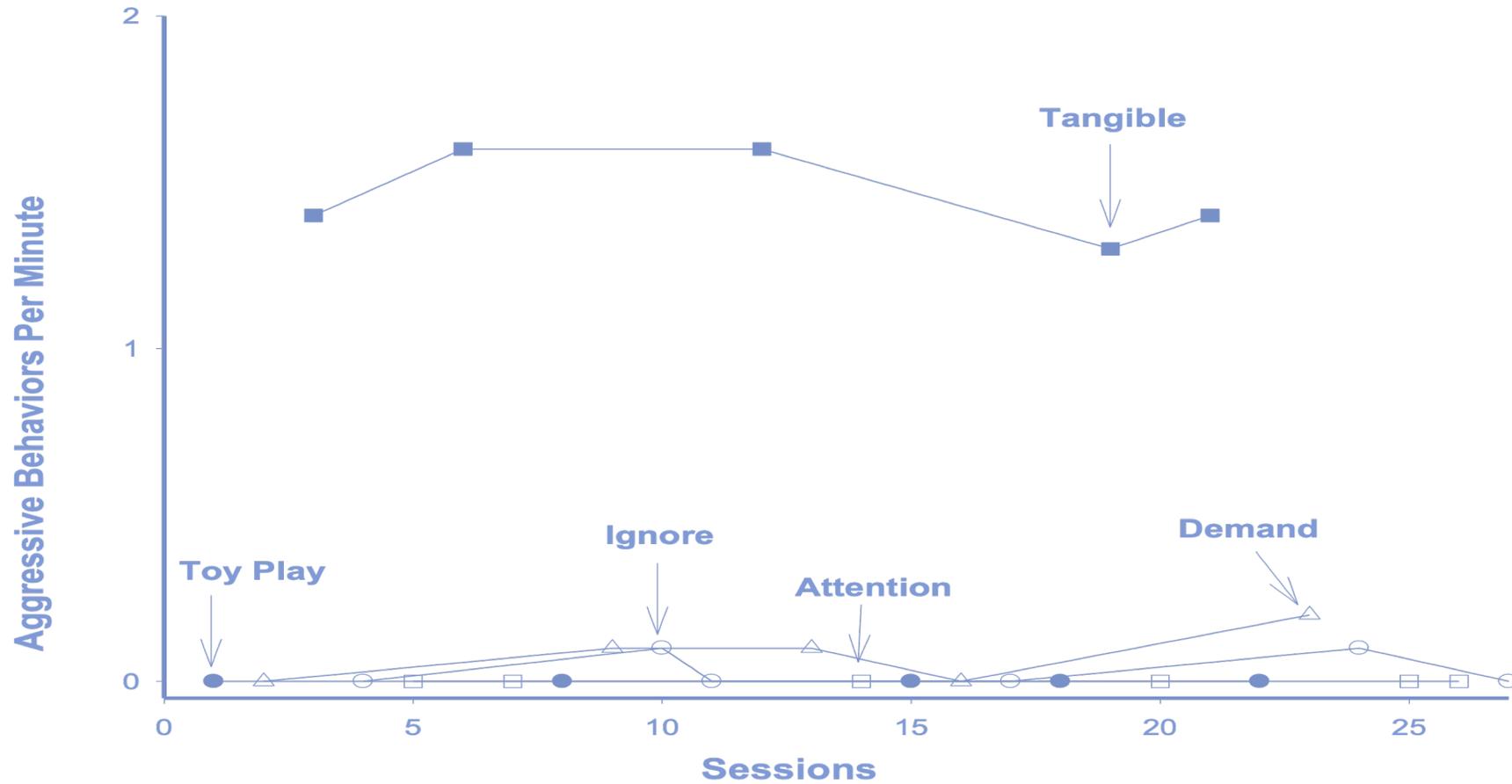


FBA: Functional Analysis

Methodology to test, validate, and eliminate hypotheses of functional relationships using single-case designs

- Test conditions contain relevant antecedents and consequences for problem behavior.
- Control condition does not contain those variables.
- Document behavior across conditions and assess trends.

Differentiated Results



Advantages of Functional Analysis

■ Advantages

- Greatest internal validity: Provides greatest precision and confidence in understanding behavior (causal relationships).
- Might observe treatment effects during assessment.

■ Disadvantages

- Technical skill.
- Failure to identify the full range of the controlling variables beyond the “usual suspects”.
 - Generic escape vs. escape from type of work.

Rationale for Treatment based on Function

When function of problem behavior is known, treatment involves:

Disrupting the response-reinforcer relation (e.g., extinction).

Providing known reinforcer contingent on desired behavior (e.g., DRA).

Function-Based Treatments

Social Functions (Escape, Tangible, Attention):

- FCT: provide functional reinforcer contingent on communicative behavior.
- Differential reinforcement: DRO, DRA, DRI, DRL, DRH.
- Antecedent Tx: fading, shaping, picture schedules, prompts, choice, SD/MOs.
- NCR: reinforcer provided on fixed time schedule, enriched environment.
- Extinction: withhold reinforcer for disruptive behavior.
- Timeout, Response Cost.

Automatic Functions:

- NCR: Competing Items (matched sensory stimuli), enriched environment.
- Antecedent Tx: picture schedules, SD/MOs (increase effort).
- Differential reinforcement: DRO, DRA (play skills), DRI, DRL.
- Response Blocking.
- Time out, Response Cost.
- Protective Equipment.

Putting it all together

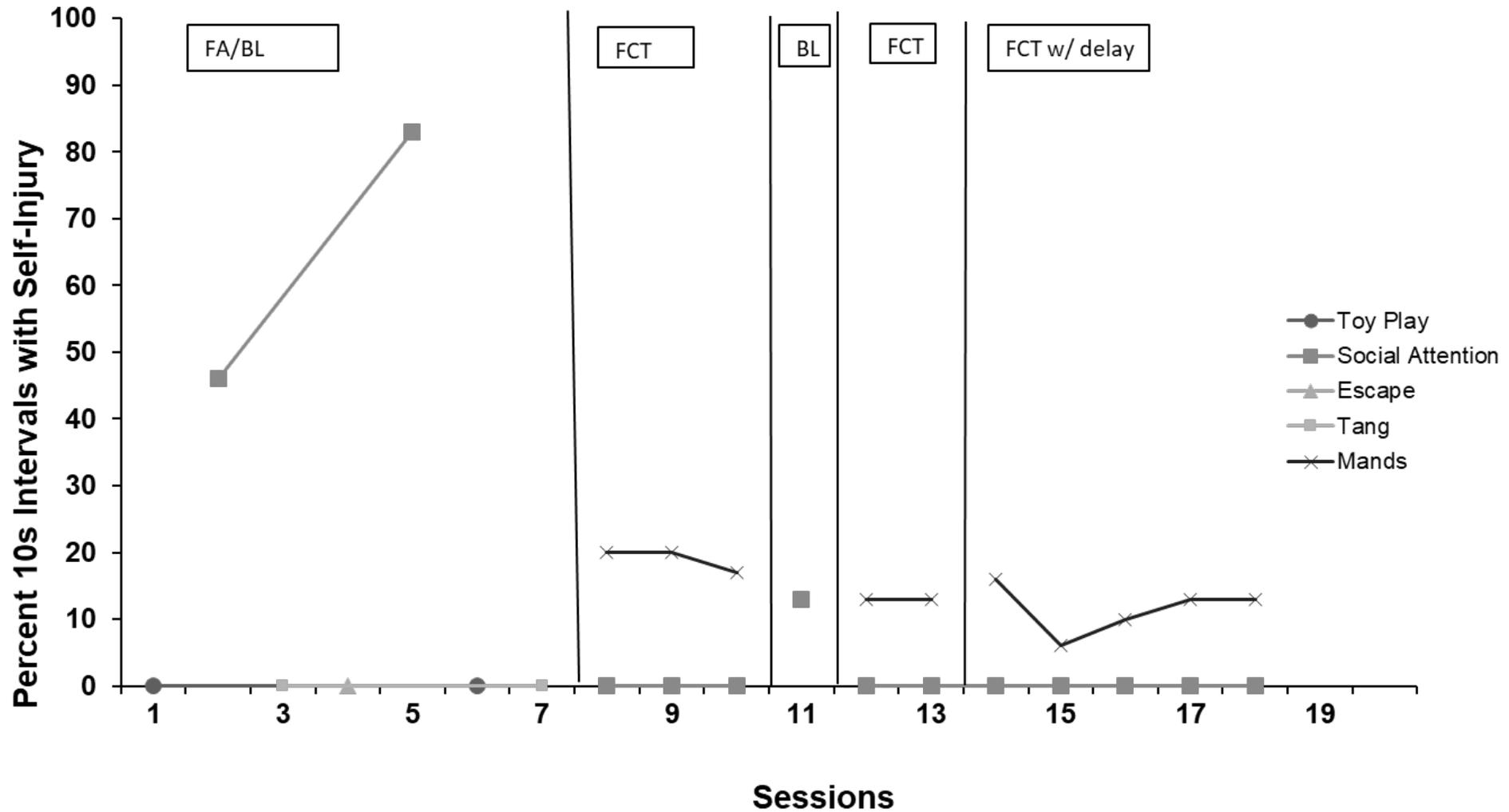
FBA

Treatment development and evaluation (multiple functions?)

Maintenance of treatment effects over time

Generalization of treatment effects across settings, people etc.

Use of FCT to Treat SIB



Tools to ID Function

Functional Assessment Interview

O'Neill, R. E., Horner, R. H., Albin, R. W., Sprague, J. R., Storey, K., & Newton, J. S. (1997). *Functional assessment and program development for problem behavior: A practical handbook*. Pacific Grove, CA: Brooks/Cole Publishing.

Functional Assessment Screening Tool

Iwata, B., & DeLeon, I. (2005). *The functional analysis screening tool*. Gainesville, FL: The Florida Center on Self-Injury, University of Florida.

Addressing the Trauma Question

Rajaraman, A., Austin, J.L., Grover, H.C., Cammilleri, A.P., Donnelly, D.R., & Hanley, G.P. (2022). **Toward trauma-informed applications of behavior analysis.** *Journal of Applied Behavior Analysis.* 55: 40-61

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- Cooper, J. O., Heron, T. E., & Heward, W. H. (2007). Applied Behavior Analysis (2nd Ed.). Pearson Education Inc., Upper Saddle River, NJ.
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Questions

THANK YOU!

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