Function-Based Approach to Assessment and Treatment of Challenging Behaviors

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Disclosures

Eric Boelter has no financial relationships relevant to this presentation to disclose.

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Objectives

Gain knowledge of FBA process.

Gain knowledge of FA process.

Gain understanding of Function-Based treatment.

Discuss TIC framework for ABA

Just Tools

The analysis of observable behavior and its interaction with the environment is a science (ABA) that has been applied in many ways to analyze and alter different types of human behavior including pro-health behaviors, employee behaviors in the work setting, and behaviors with individuals with developmental differences

But the science is just a tool used to improve the lives of individuals

When working with individuals who have intellectual delays and are non-speaking with limited other ways to communicate, we use the analysis of observable behavior to make hypotheses about why that individual is engaging in an observed behavior. When that behavior is destructive like aggression it is important to know why the behavior is occurring, so we know how to focus our help rather than use trial and error strategies.

Science of Behaviorism

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

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).

Cooper, Heron, & Heward, 2007

Applied Behavior Analysis (ABA)
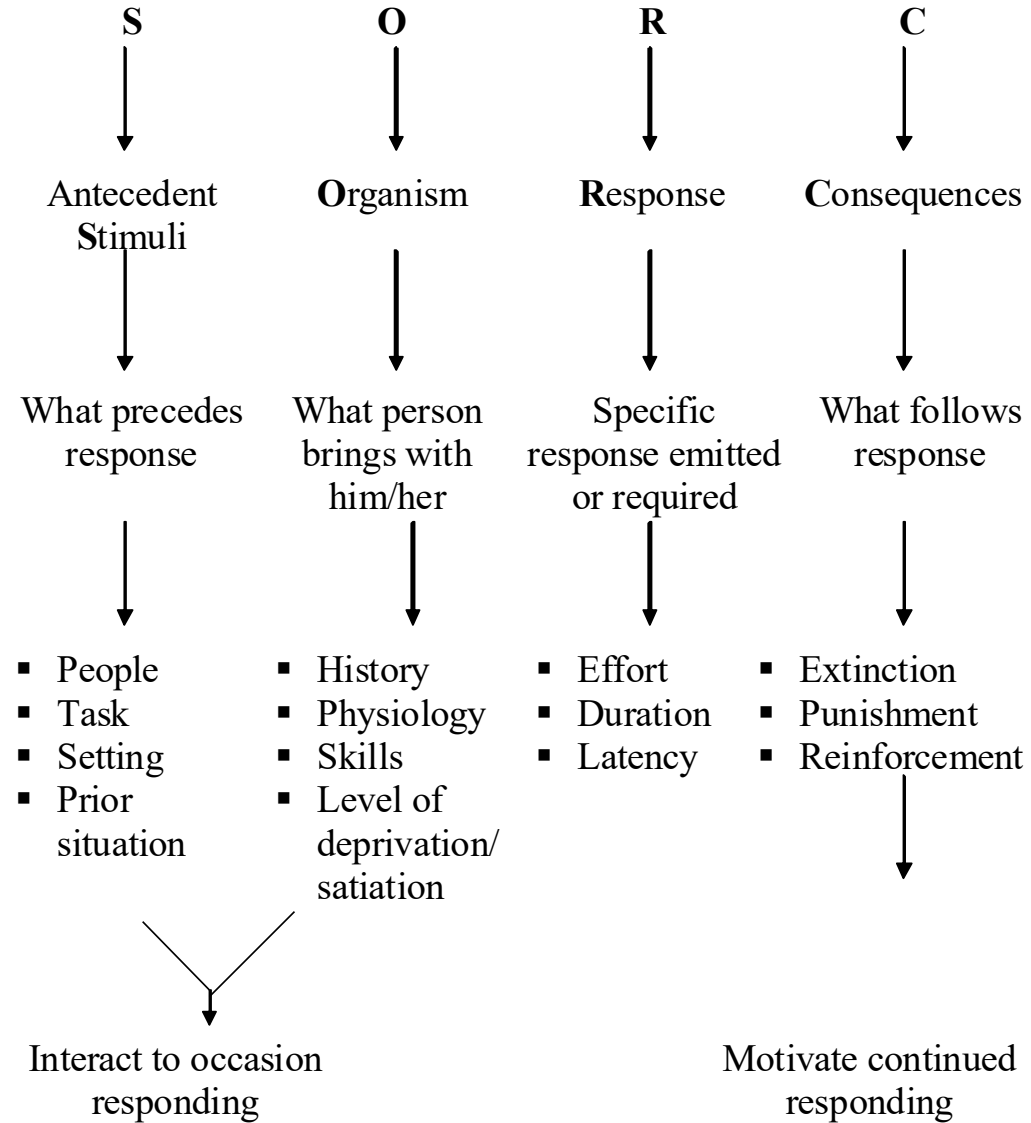
The process of:

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

Environmental Influences on Behavior

S	**O**	**R**	**C**
↓	↓	↓	↓
Antecedent **S**timuli	**O**rganism	**R**esponse	Consequences
↓	↓	↓	↓
What precedes response	What person brings with him/her	Specific response emitted or required	What follows response
↓	↓	↓	↓
▪ People ▪ Task ▪ Setting ▪ Prior situation	▪ History ▪ Physiology ▪ Skills ▪ Level of deprivation/ satiation	▪ Effort ▪ Duration ▪ Latency	▪ Extinction ▪ Punishment ▪ Reinforcement

Interact to occasion responding

Motivate continued responding

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)

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
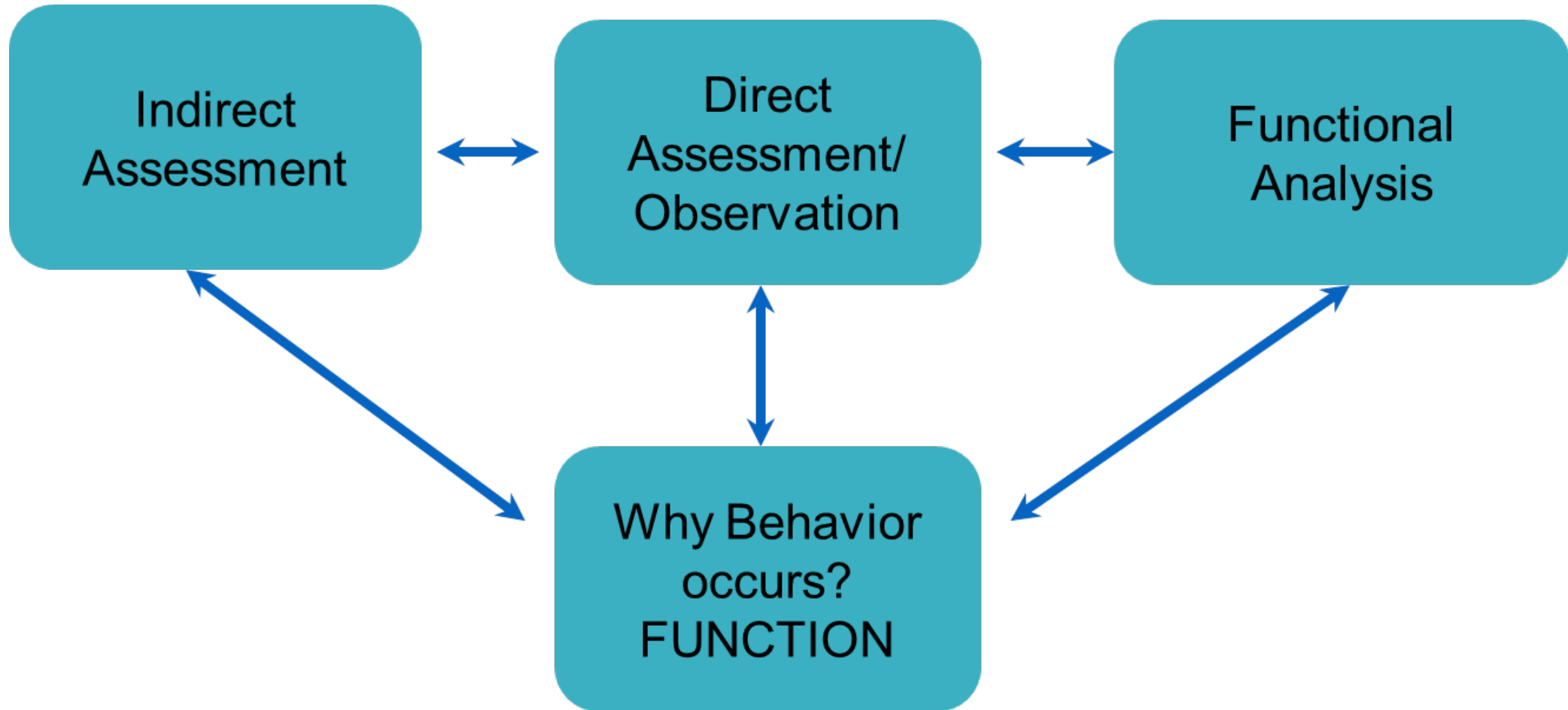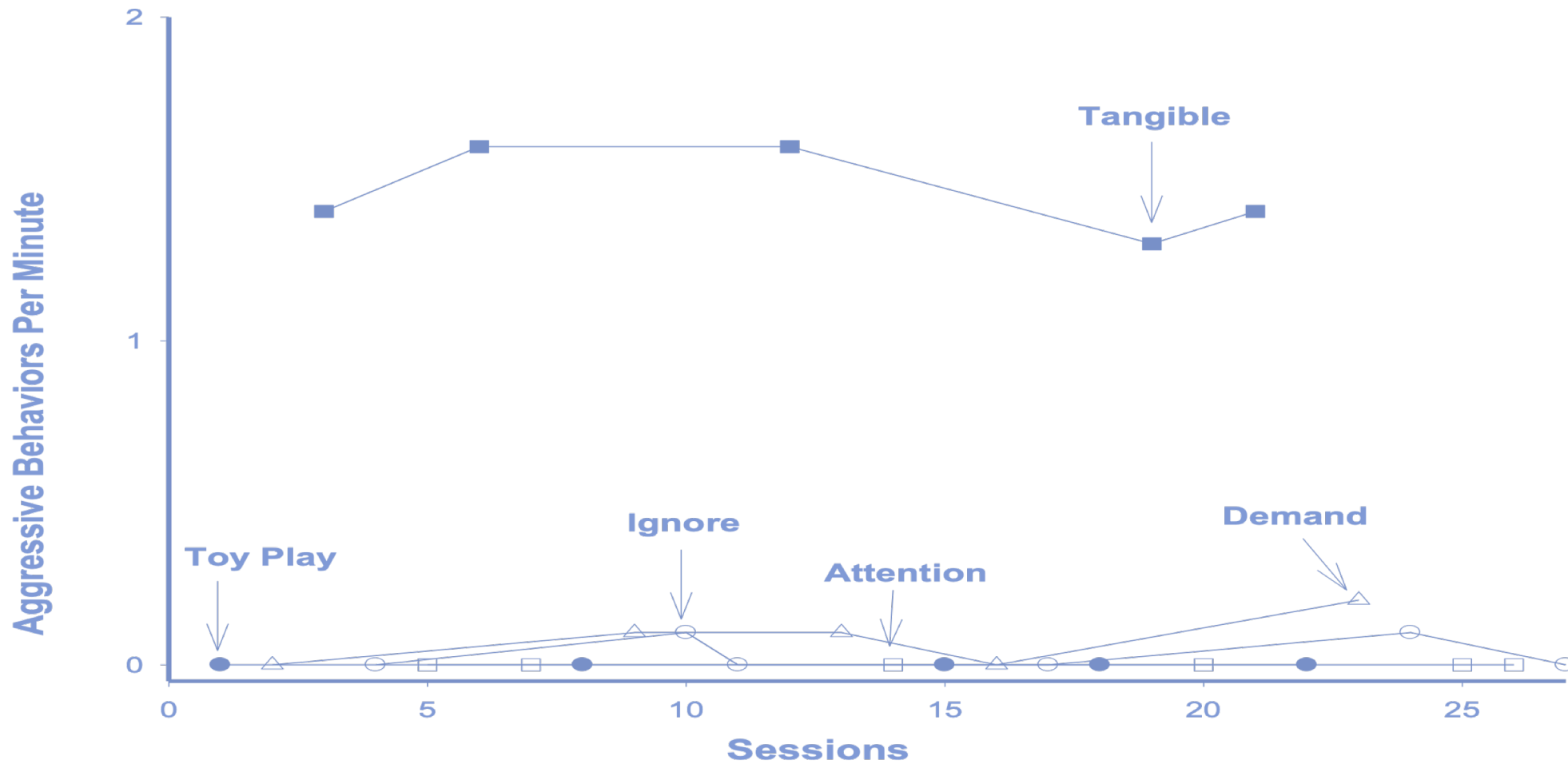
FBA: Functional Analysis

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

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.
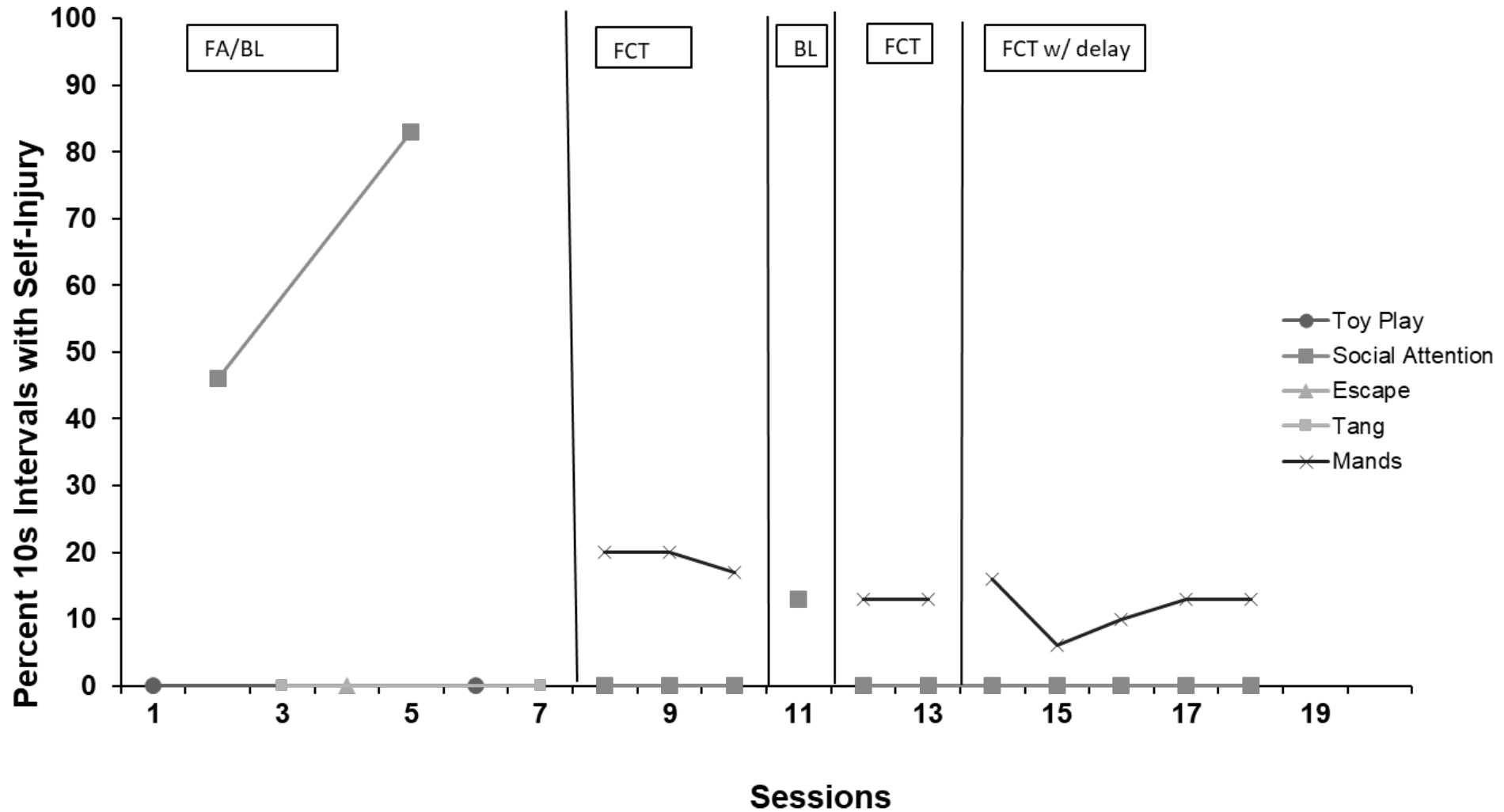
Putting it all together

FBA

Treatment development and evaluation

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

TIC Framework for ABA

- Acknowledge Trauma and its potential impact
  - Alters how individuals respond to environmental stimuli
  - May alter how you develop assessments or treatments
- Ensure Trust and Safety
  - Environmental structure signally safety and consistent interactions developing trust
- Promote Choice and Shared Governance
  - Large literature based on positive effects of choice built into interactions/environment
  - Choice factors into shared governance; choosing to participate
- Emphasize Skill Building
  - Large literature based on teaching a variety of skills to individuals

References

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Questions

THANK YOU!

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