

Using Telehealth to Assess Parent Implemented Intervention to Increase Independent Leisure Skills Using Differential Reinforcement for a Young Adult with Autism and Intellectual Disabilities

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BACKGROUND
Using parent implemented interventions (PII) via telehealth, this study encapsulates the use of a differential reinforcement to increase independent leisure skills for a young adult diagnosed with autism spectrum disorder and intellectual disability within the home. A changing criterion design was utilized to evaluate the progression of increasing independent leisure skills by completing preferred tasks. Results showed PII was effective in decreasing challenging behaviors while increasing independent leisure skills with a high degree of parent fidelity.

METHODS
Participants:

- *Parent:* mother
- *Young Adult:* 19-year-old male, diagnosed with autism spectrum disorder (ASD) and intellectual disabilities (ID)

Measures:

- *Research Design:* changing criterion design
- *Dependent Variable:* behaviors of concern (i.e., self-injury, property destruction, and yelling) and independent leisure skills (e.g., puzzles, sorting)
- *Independent Variable:* antecedent strategies and differential reinforcement

Procedure:
Parent Training:

- Utilized behavior skills training to teach parent steps of intervention.

Intervention:

- Parent followed a 12-step task analysis to implement the differential reinforcement procedure.
- Implemented antecedent strategies including a visual first-then board and timer.
- Parent left the room for an increasing amount of time, and upon return provided reinforcement if the young adult engaged in the leisure skill and refrained from demonstrating behaviors of concern.
- If young adult demonstrated behaviors of concern, the trial was stopped, parent returned, low attention was provided, and after 30 seconds of a calm body a reset trial began.

RESULTS
Baseline:

- *Parent:* Average of 0% completion of independent steps
- *Young adult:* Engaged in independent leisure skills without behaviors of concern at an average of 50 sec

Intervention:

- *Parent:* Average of 99% completion of independent steps across parent training and intervention.
- *Young adult:* Intervention is currently at 180 sec (3 min)

Interobserver Agreement (IOA):

- IOA was calculated for 100% of sessions
- Parent Data: Average of 99% agreement, ranging from 95%-100%

LIMITATIONS AND FUTURE RESEARCH
Potential limitations include technological barriers, lack of in person staff support, and lack of resources. Future research should consider expanding differential reinforcement with students who have more than one disability, replicating the study, and using differential reinforcement with students who have more than one disability.

Findings from this study indicate that parent implemented intervention via telehealth for teaching antecedent strategies and differential reinforcement procedures led to both increasing leisure skills and decreasing behaviors of concern for a young adult with autism and intellectual disabilities.

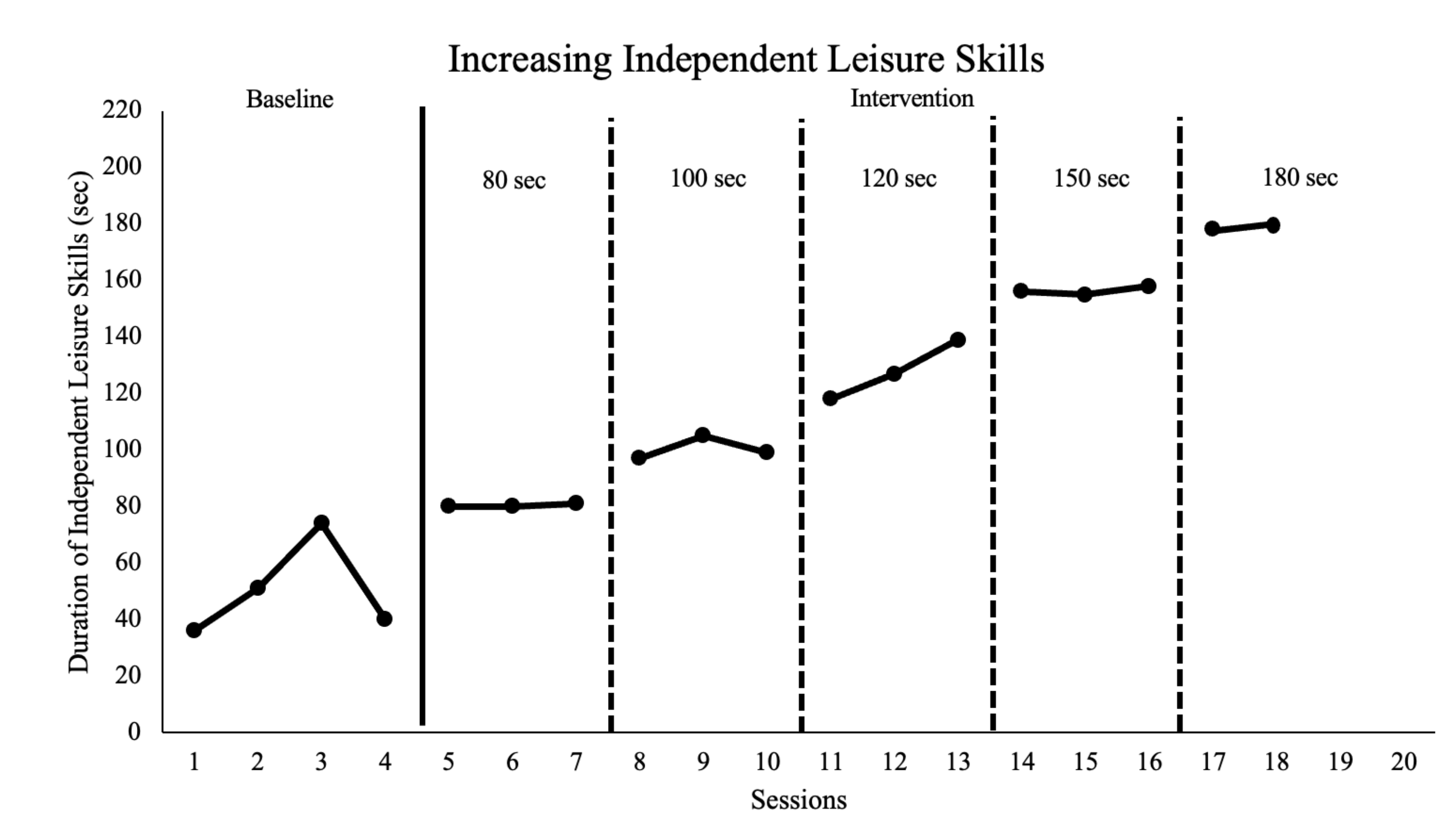


Figure 1: Changing criterion design displaying duration of independent leisure skills for a young adult child.

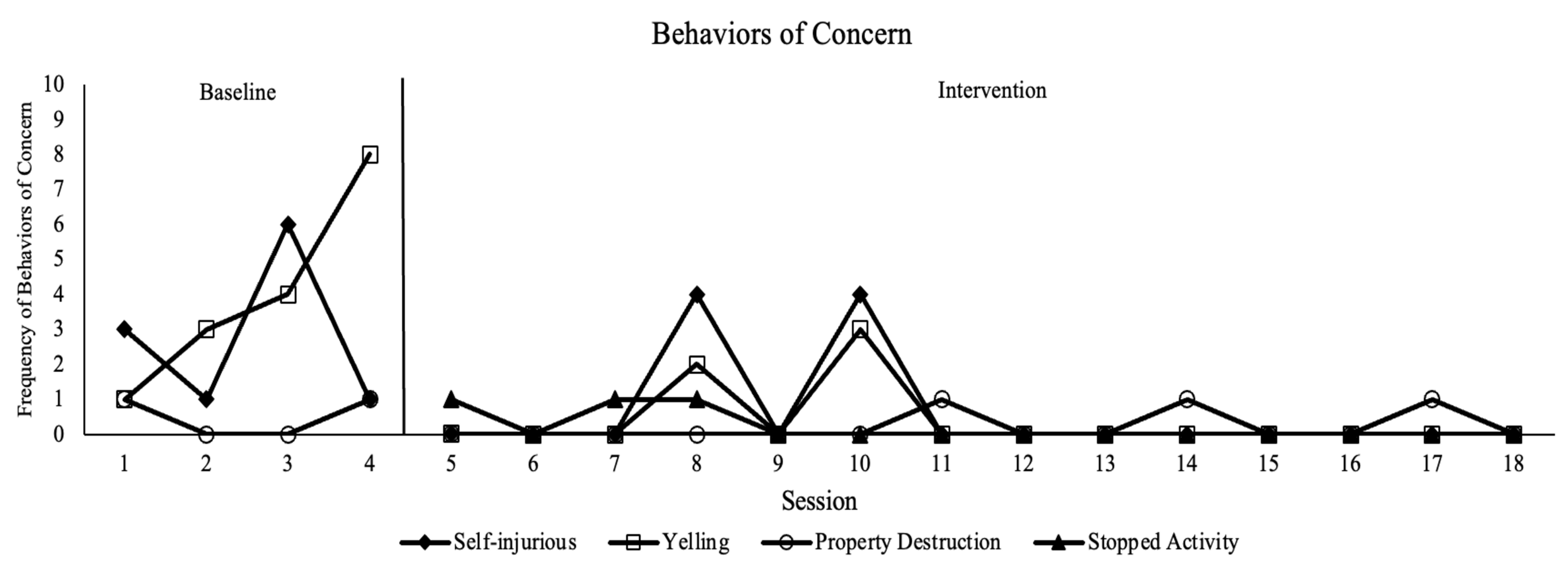


Figure 3: Frequency of behaviors of concern occurring throughout baseline and intervention phases.

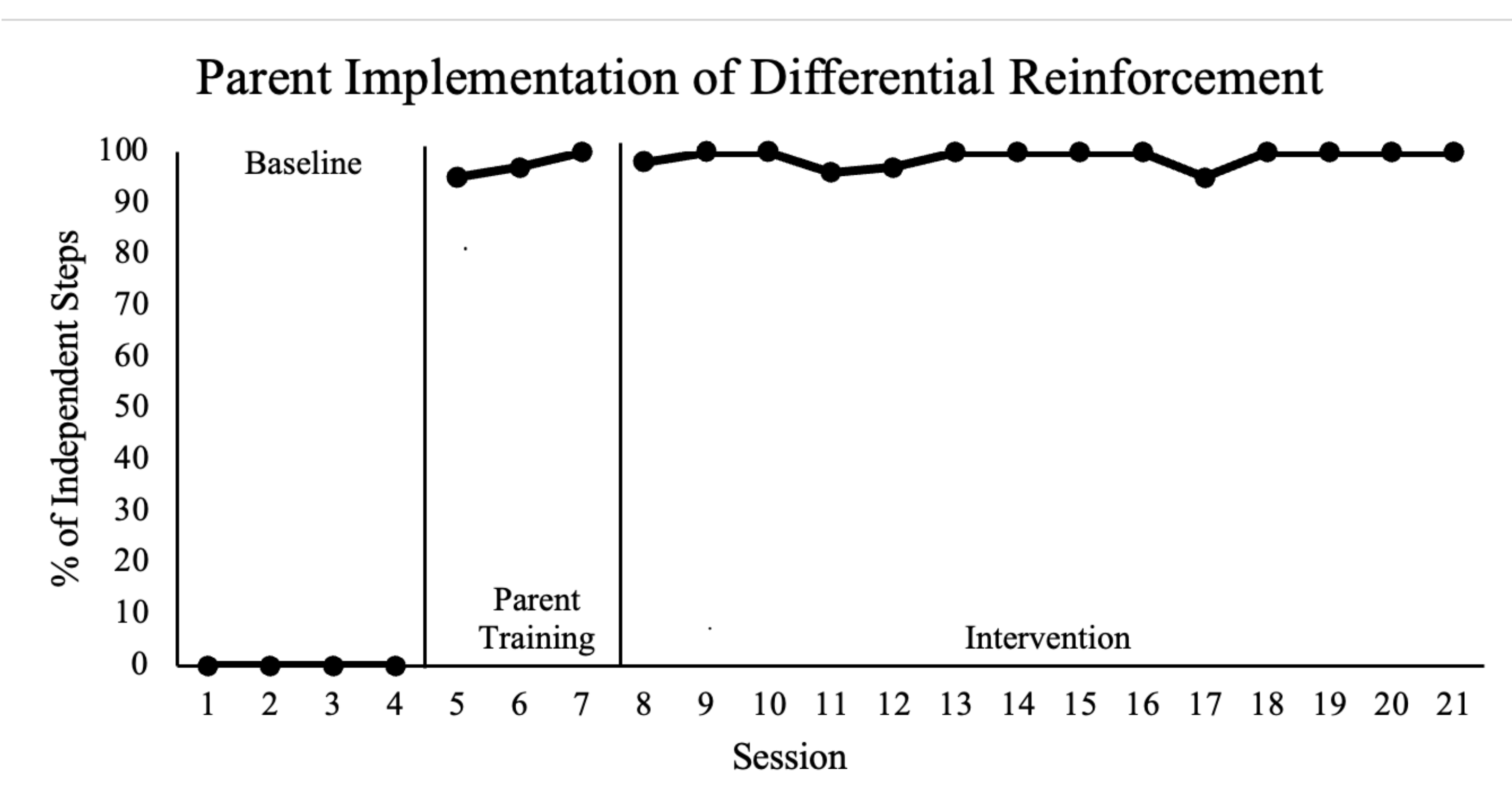


Figure 2: Percentage of accurate parent implemented steps of differential reinforcement across baseline, parent training, and intervention.

Social Validity Question	Pre-Service Survey	Mid-Service Survey
Rate your confidence in implementing ABA with a professional	(Scale: Not at all confident – Extremely confident) Extremely confident	(Scale: Not at all confident – Extremely confident) Extremely confident
Rate your confidence in implementing ABA by yourself	(Scale: Not at all confident – Extremely confident) Moderately confident	(Scale: Not at all confident – Extremely confident) Extremely confident
How appropriate/relevant were the child's learning goals that were developed in addressing behavior concerns	(Scale: Not at all relevant – Most relevant) Most relevant	(Scale: Not at all relevant – Most relevant) Most relevant
How effective were the services in improving the quality of life for your family	N/A	(Scale: Not effective at all – Extremely effective) Extremely effective

Table 1: Social validity pre-service and during service surveys completed by the parent.

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