

Practical Functional Assessment Producing Meaningful Improvements in Problem Behavior of Children with Autism

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video examples, interview forms, etc., go to:

www.practicalfunctionalassessment.com

A tropical path lined with lush greenery and palm trees, leading towards a bright blue ocean under a clear sky. The path is sandy and flanked by a wooden fence on the left and a stone wall on the right. The scene is bright and sunny, with shadows cast on the path.

freedom

from these behaviors

for persons with Autism and their caregivers

is attainable

Fact:

With Autism, there is a higher likelihood of problem behavior

Meltdowns

Aggression

Self-injury

References: Baghdadli, Pascal, Grisi, & Aussilloux, 2003; Horner et al., 2002; Kim et al., 2000; Murphy, Healy, & Leader, 2009; Thompson, 2009

Fact:

**Problem behavior has led to
a highly restrictive life style
for many persons with autism
and their families**

**This lifestyle develops partly because
problem behavior of children with autism is
merely**

**modified,
medicated, or
mollified**

rather than understood

**with treatments developed based on that
understanding**

To understand

=

**to determine the personally relevant
outcomes and context that influence
problem behavior**

**behavior analysts conduct
functional assessments**

Functional Assessment Process

Indirect Assessment
interviews

Descriptive Assessment
observations

Functional Analysis
observations with
manipulation

Fundamental Assumption:

**If problem behavior is occurring with regularity,
*it is being reinforced***

A distinction of importance:

Proven efficacy

but of questionable effectiveness

Approaching effectiveness now....

*PRODUCING MEANINGFUL IMPROVEMENTS IN PROBLEM
BEHAVIOR OF CHILDREN WITH AUTISM VIA SYNTHESIZED
ANALYSES AND TREATMENTS*

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CrossMark

ORIGINAL PAPER

The Generality of Interview-Informed Functional Analyses: Systematic Replications in School and Home

Joana L. Santiago¹ · Gregory P. Hanley^{2,3} · Keira Moore^{4,5} · C. Sandy Jin^{4,6}

Case Example (Gail, 3 yo, dx: PDD-NOS)

Setting: Outpatient Clinic

Interview suggested that Gail engaged in meltdowns and aggression....



*Problem
Behavior*

Case Example (Gail, 3 yo, dx: PDD-NOS)

Setting: Clinic

Interview suggested that Gail engaged in meltdowns and aggression....



***Problem
Behavior***

when Mom was attending to other tasks or siblings....



***Context
(suspected
establishing
operations)***

Case Example (Gail, 3 yo, dx: PDD-NOS)

Setting: Clinic

Interview suggested that Gail engaged in meltdowns and aggression....



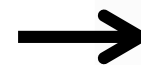
Problem Behavior

when Mom was attending to other tasks or siblings....



Context
(suspected establishing operations)

in order to gain Mom's undivided attention and to have Mom play with her and her most preferred toys.



Outcome
(suspected reinforcers)

Functional Analysis: Test Condition

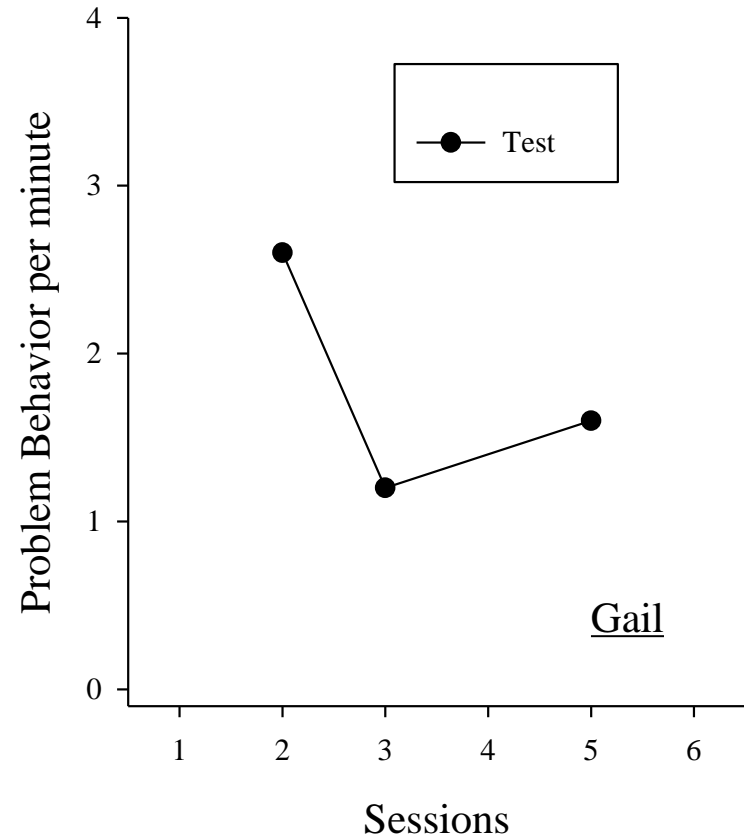
Test: Mom attends to other tasks and people....

As soon as Gail engaged in any problem behavior, Mom directs her undivided attention to Gail while interacting with her and her most preferred toys.

Functional Analysis: Test Condition

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As soon as Gail engaged in any problem behavior, Mom directs her undivided attention to Gail while interacting with her and her most preferred toys.

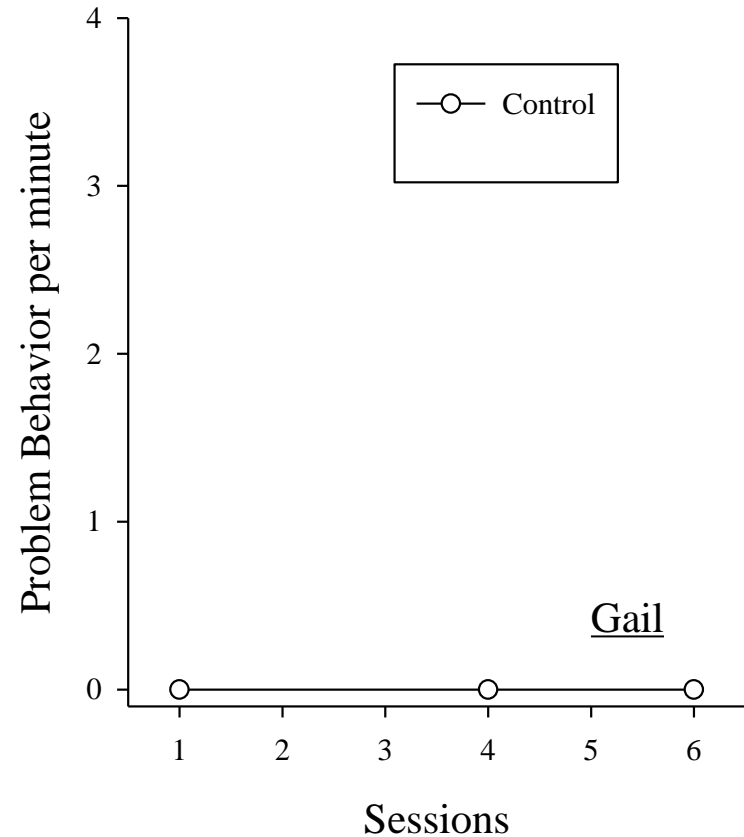


Functional Analysis: Control Condition

Control: Mom directs her undivided attention to Gail while interacting with her and her most preferred toys the entire time.

Functional Analysis: Control Condition

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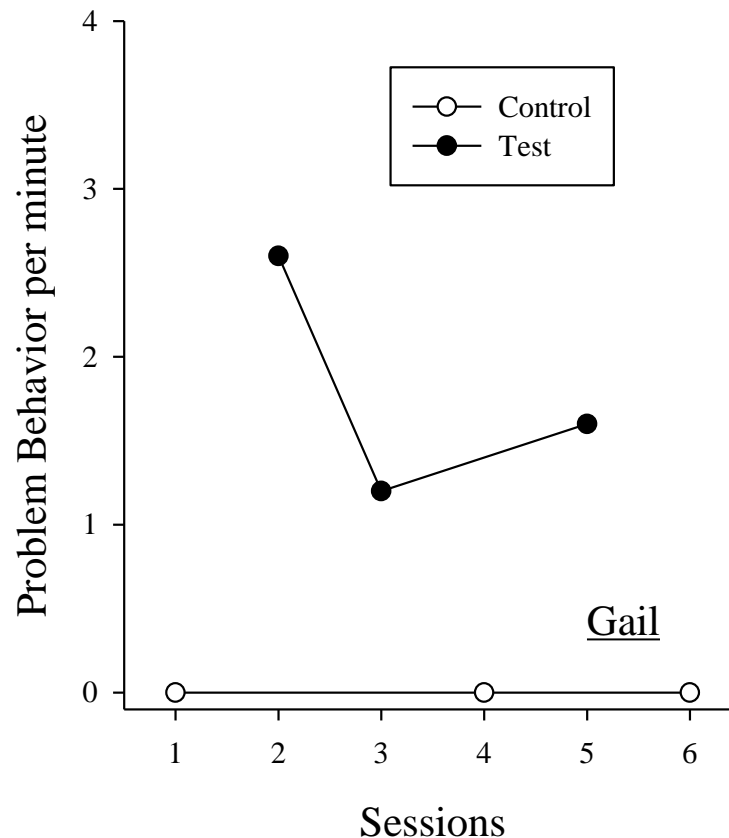


Case Example: Gail, 3 years old, PDD-NOS

*By **alternating** between 5 minute periods of test and control conditions, we were able to turn on and off Gail's problem behavior....*

Giving us and her Mom confidence as to why she was engaging in the extraordinary problem behavior

....to simply gain and maintain her Mom's undivided attention and play time



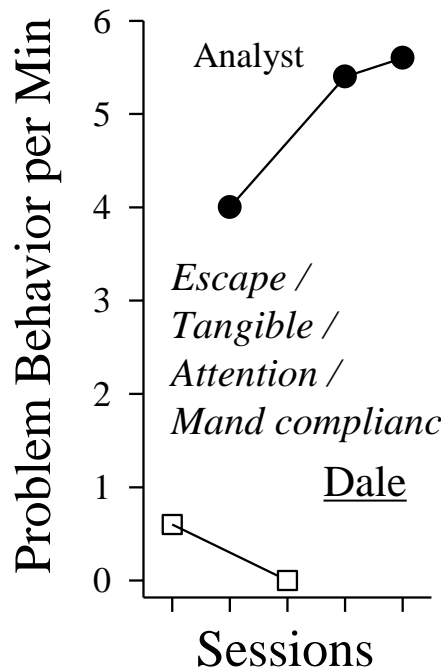
Case Example (Dale, 11 yo, dx: Autism)

Setting: Clinic

Hypothesis:

Dale engages in meltdowns and aggression in order to obtain:

“His way” in the form of escape from adult instructions and access to preferred (tangible) items, and adult attention.



Some Important Aspects of our Approach

1. An open-ended interview is always part of the process (as is one brief and informal observation)

Goals of interview are to:

- a) Develop rapport with parents or teachers
 - b) Identify unique contingencies
 - c) Develop “function hunches”
 - d) Set up a safe and quick analysis
-
- ***Interviews* allow for discoveries which can then be verified (or not) in a functional analysis**

Some Important Aspects of our Approach

2. A two-condition analysis designed from the open-ended interview is always part of the process (i.e., an interview-informed analysis)

Functional analysis:

Direct observation of behavior under at least *two* conditions in which some event is manipulated

Some Important Aspects of our Approach

3. We synthesize multiple contingencies into one test condition, if the interview suggests the contingencies are operating simultaneously

Acknowledgement of whole contingencies not just the parts

Acknowledgement that whole contingencies have power not found in the parts or even in the sum of the parts

Why might problem behavior occur?

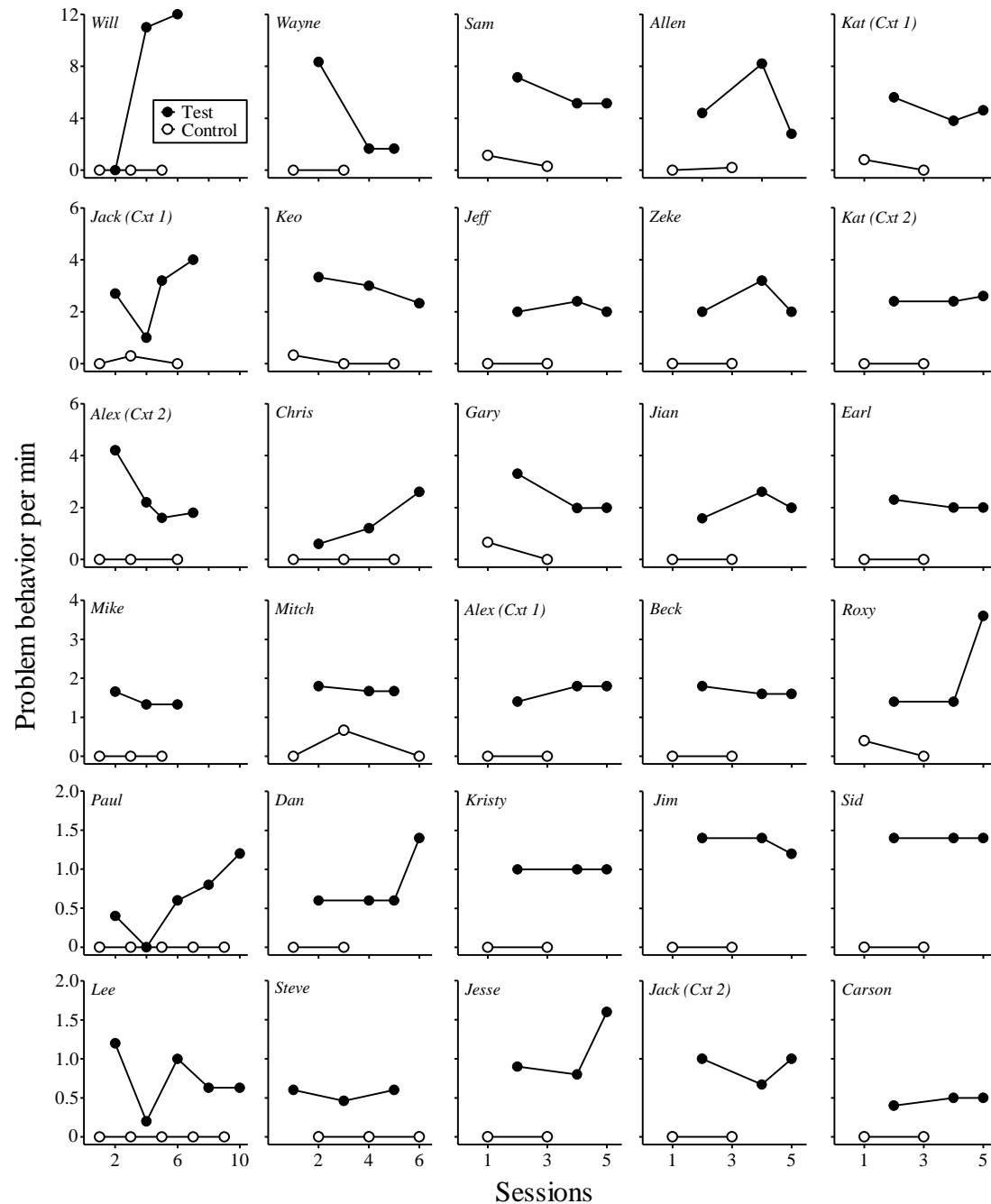
- **Single contingencies:**

1. **Attention or toys** (social-positive reinforcement)
2. **Escape/avoidance** (social-negative reinforcement)
3. **Sensory/non-social** (automatic reinforcement)

- **Combinatorial contingencies:**

1. **Attention *and* Toys**
2. **Escape *to* toys**
3. **Escape *to* toys *and* attention**
4. **Escape *to* automatic reinforcement**
5. **Compliance with mands**
6. **Escape to access to rituals, preferred conversations**
7. **Escape to controlling people or objects**
8. **Etc.....**

Some replications of the Interview informed, synthesized contingency analysis (IISCA)



Interview Informed Synthesized Contingency Analysis

IISCA

Single-test condition

Individualized test conditions

Synthesized contingencies

Reinforce precursors to and
dangerous behavior

Test-matched control

Take Home Point

Prior to treating problem behavior of children with autism, take an hour to:

- 1. Conduct an open ended interview to *discover* the context and outcomes that seem relevant to problem behavior**
- 2. Conduct an IISCA to *demonstrate* the validity of the suspected contingency**
 - and to set up the motivating conditions to teach skills

Once we identify the reinforcing contingency for the problem behavior, we

Teach the child how to effectively **communicate** for their reinforcers

Teach the child how to **tolerate** times when the reinforcer is unavailable

Teach what to do when the reinforcer is unavailable (**play, work, etc.**)

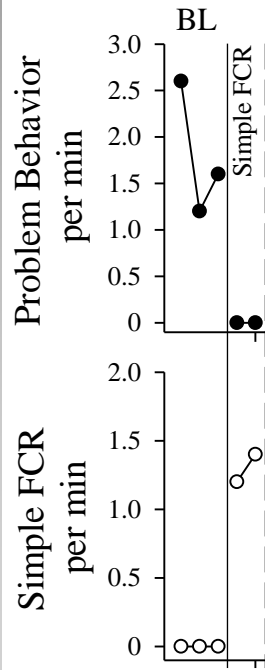
Extend this skill-based treatment to relevant people and contexts

Treatment

Treatment relies on shaping a repertoire with the synthesized reinforcers

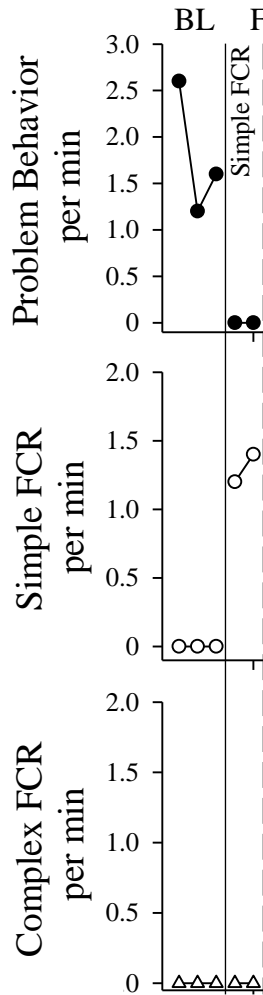
Initially provided immediately following simple behavior

Ultimately provided intermittently and unpredictably following a variety of expected behaviors



Problem behavior =
Meltdowns and aggression

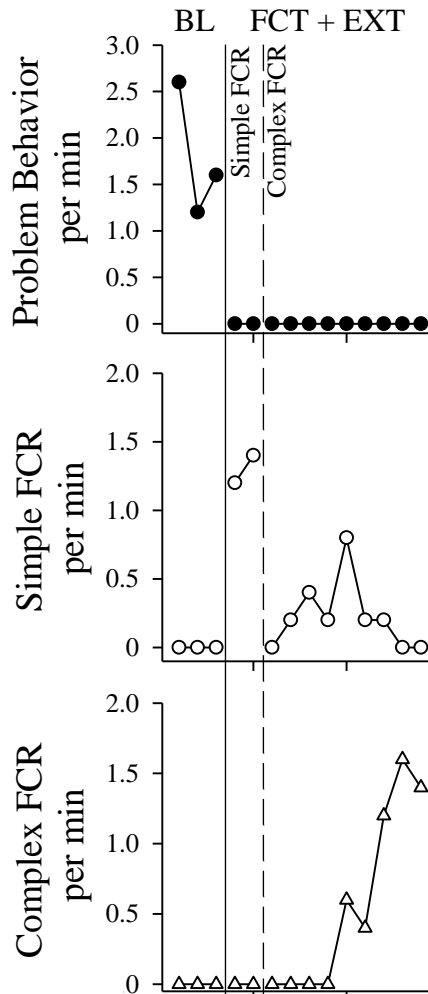
Simple functional communication responses =
“Play with me”



**Problem behavior =
Meltdowns and aggression**

**Simple functional communication responses =
“Play with me”**

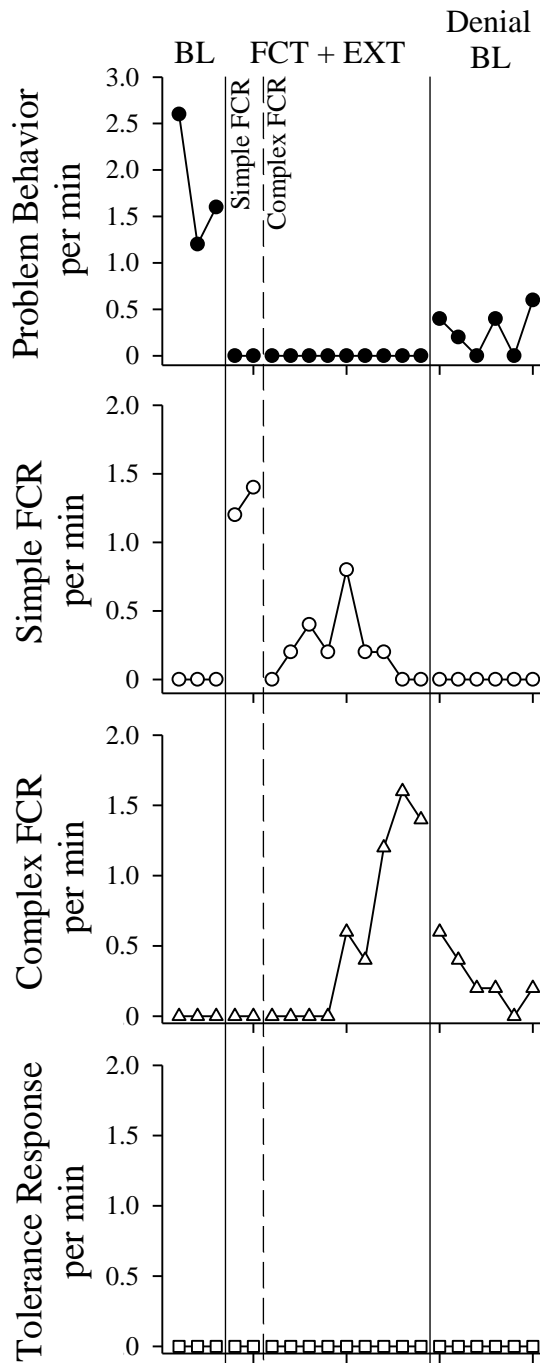
**Complex functional communication responses =
“Excuse me,” waits for acknowledgement from parent,
then says, “Will you play with me, please” with
appropriate tone and volume**



Problem behavior =
Meltdowns and aggression

Simple functional communication responses =
“Play with me”

Complex functional communication responses =
“Excuse me,” waits for acknowledgement from parent,
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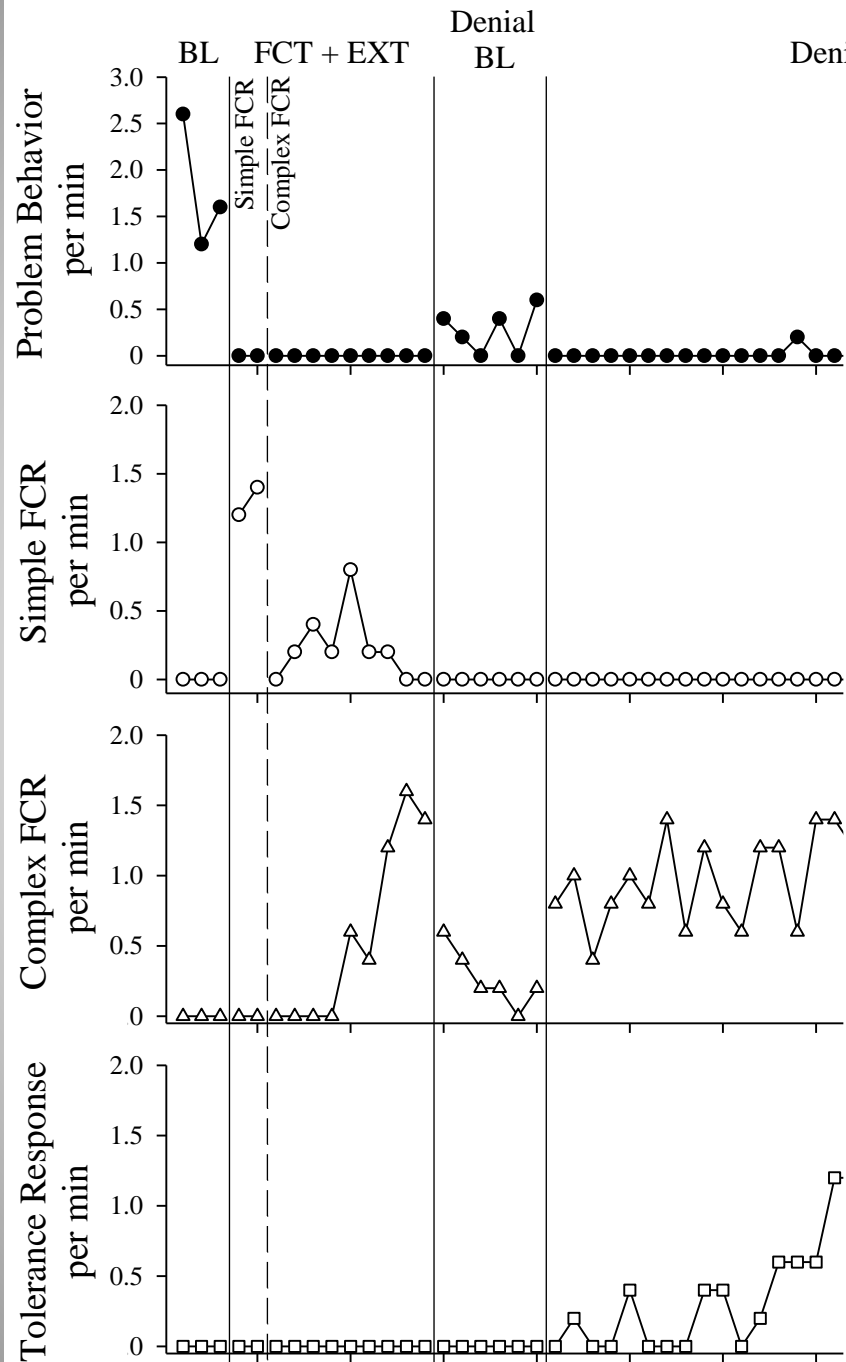
Meltdowns and aggression

“Play with me”

“Excuse me,” waits for acknowledgement from parent, then says, “Will you play with me, please” with appropriate tone and volume

Tolerance Response =
Saying, “okay” while glancing at parent who just said “No,” Wait,” “Hold on,” or “in a minute”

Denial and Delay Tolerance Training



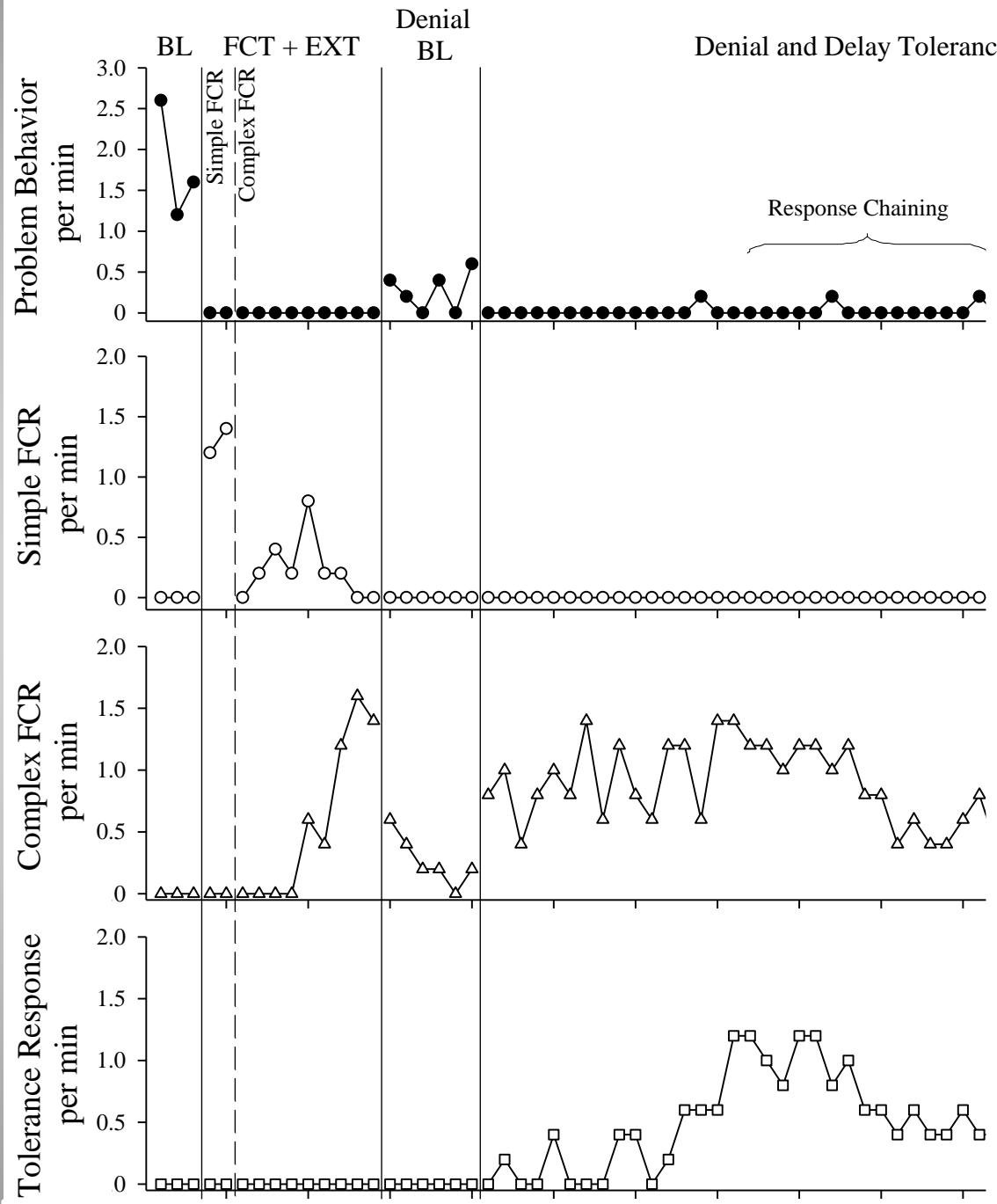
Meltdowns and aggression

“Play with me”

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Denial and Delay Tolerance Training

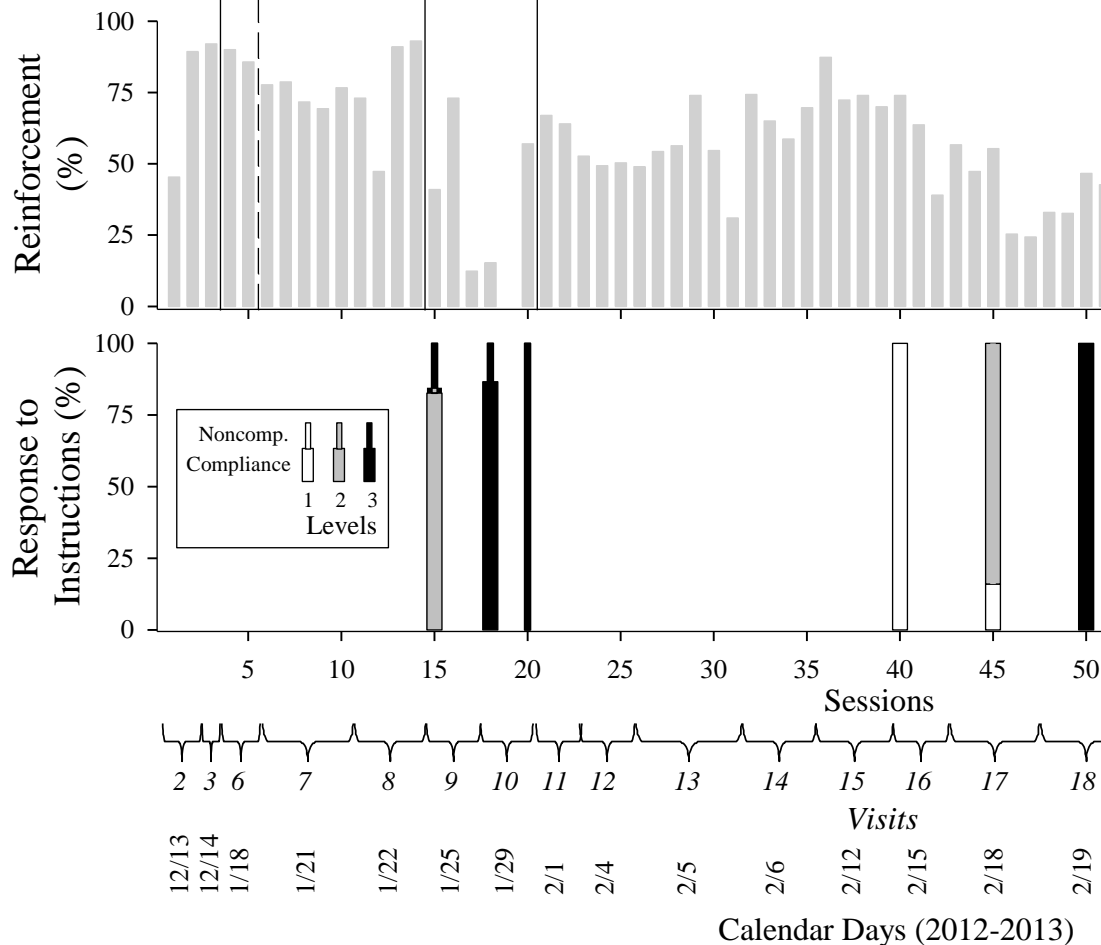


Meltdowns and aggression

“Play with me”

“Excuse me,” waits for acknowledgement from parent, then says, “Will you play with me, please” with appropriate tone and volume

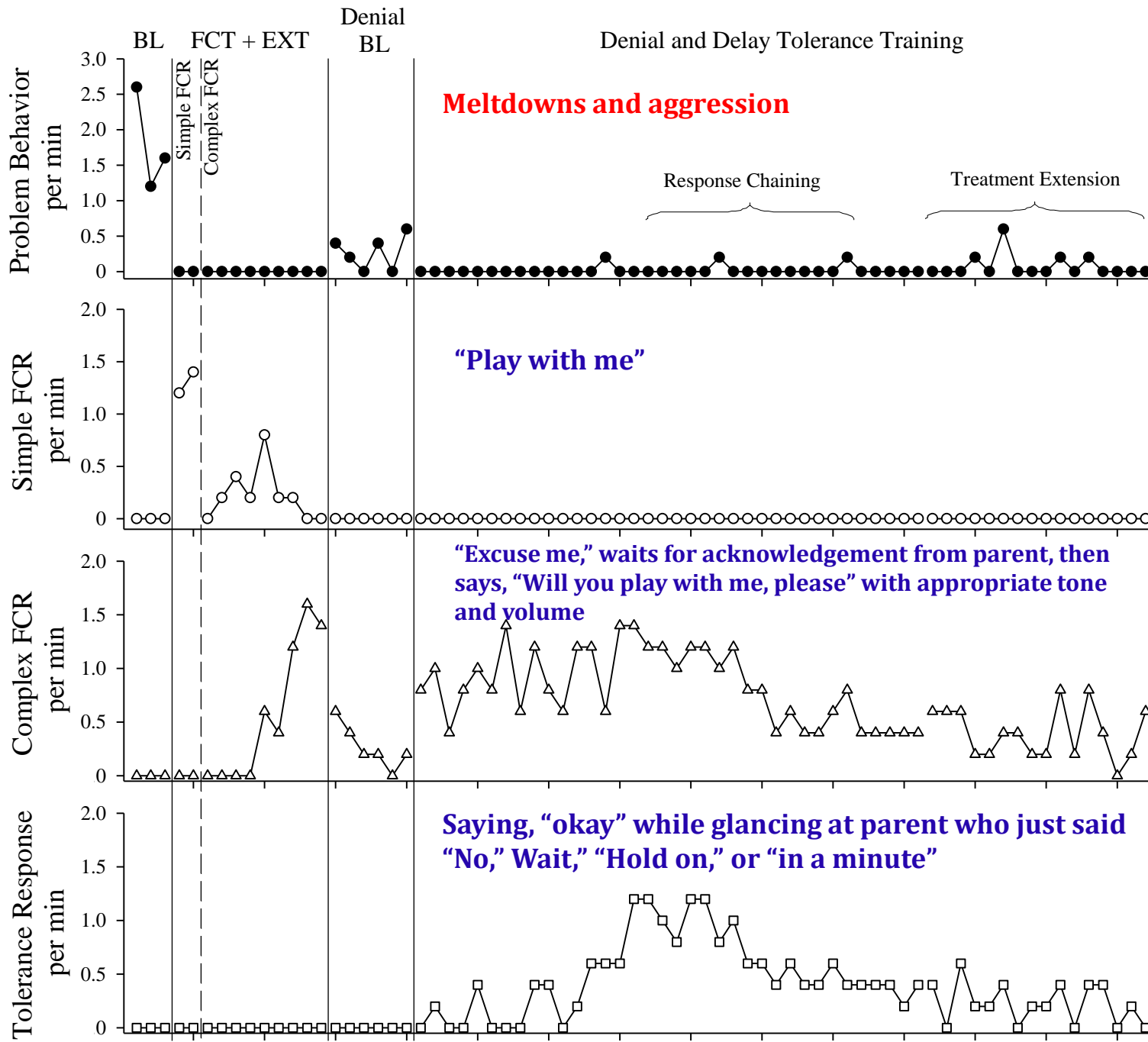
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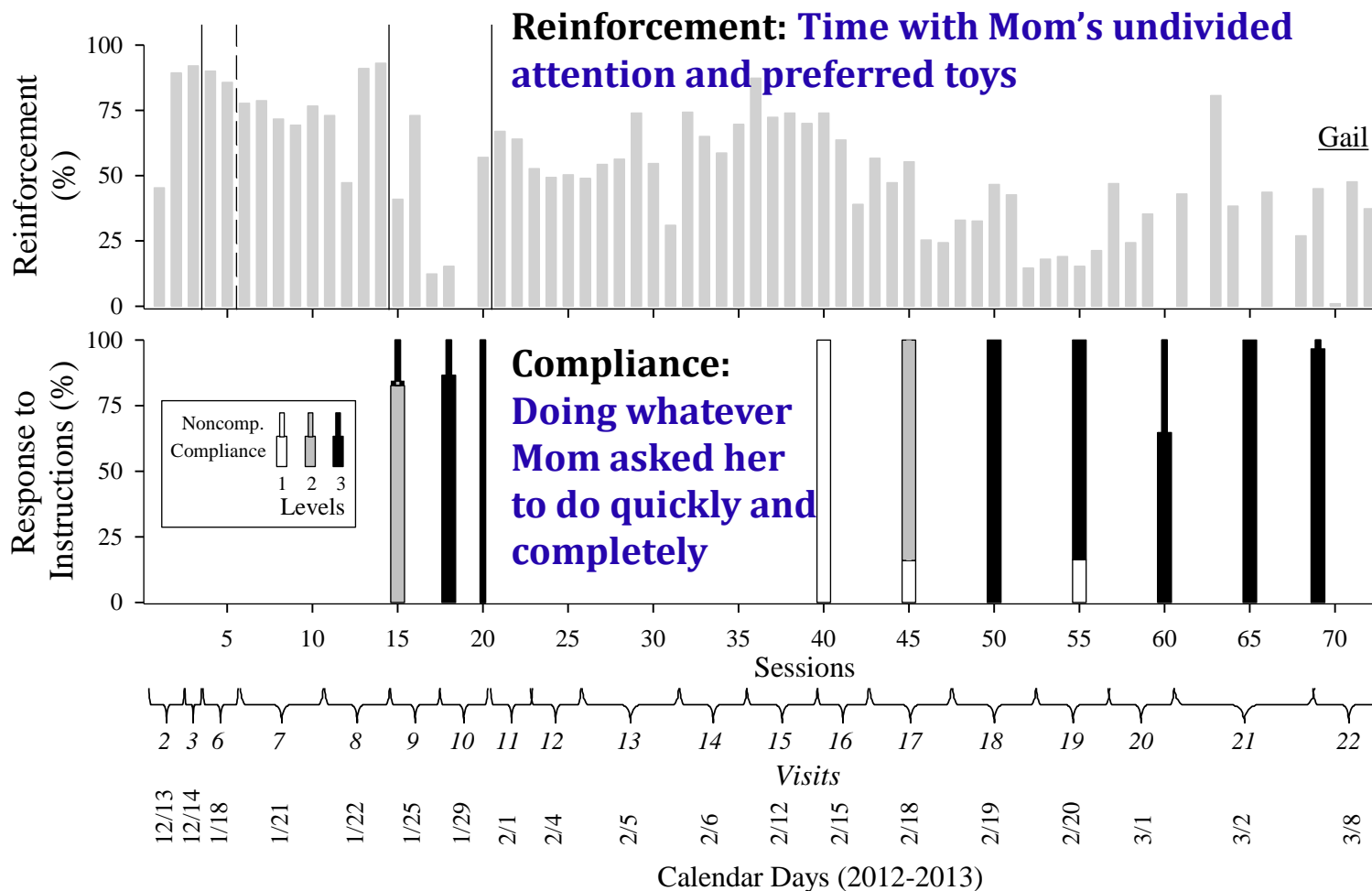


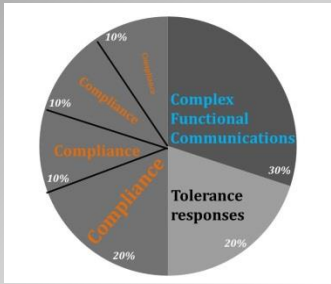
Reinforcement: Time with Mom's undivided attention and preferred toys

Compliance: Doing whatever Mom asked her to do quickly and completely

Denial and Delay Tolerance Training

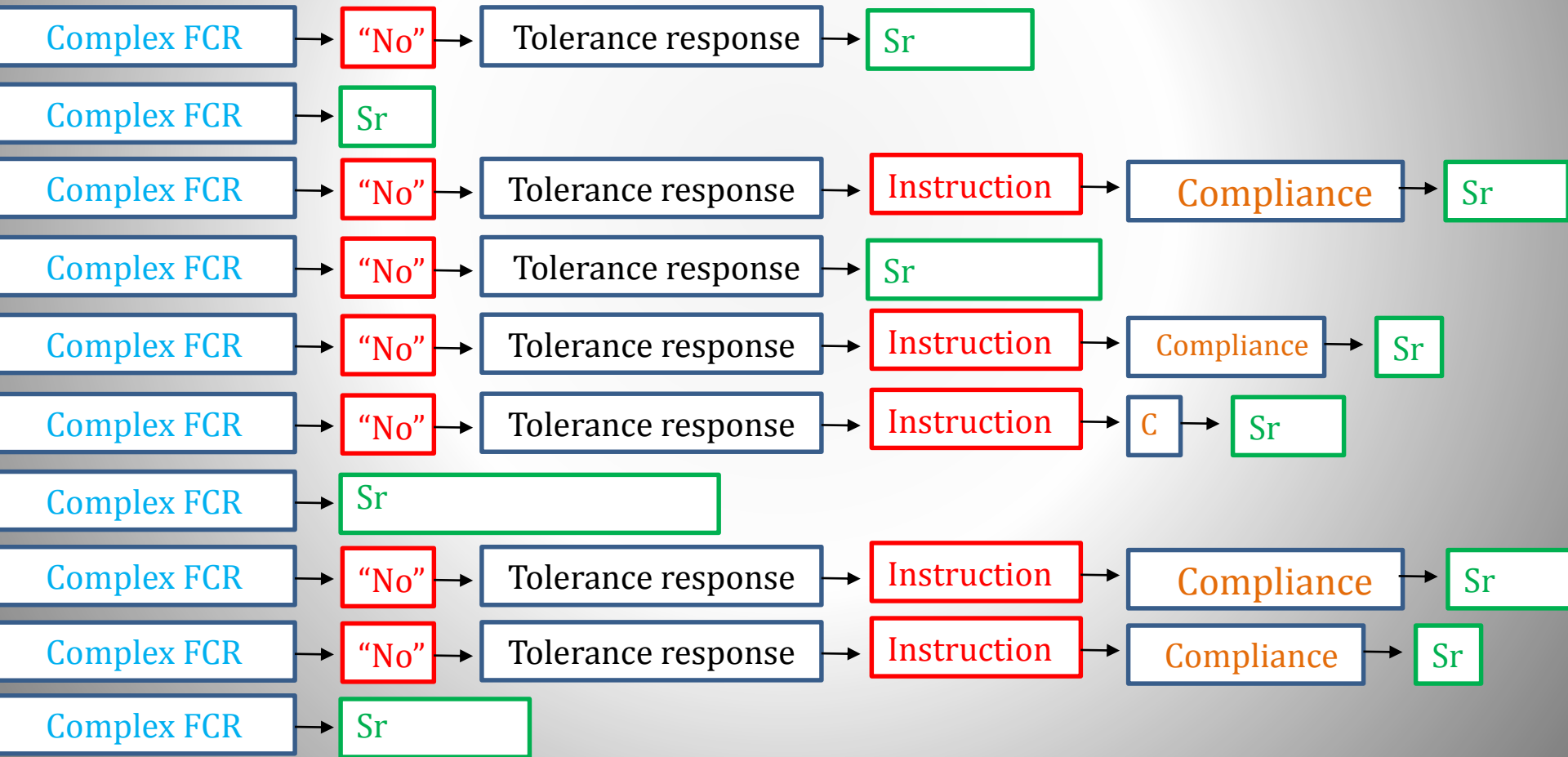




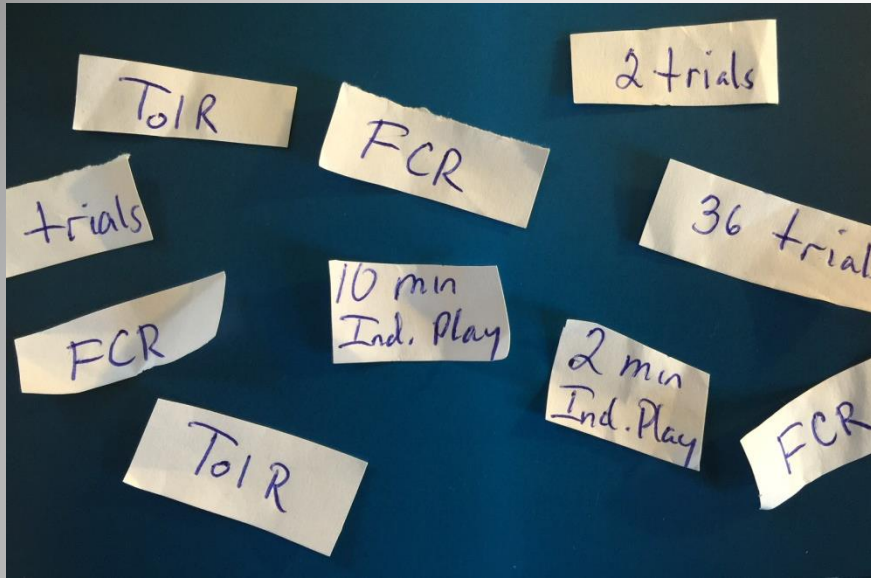


Reinforcement is:
Function-based
Differential
Intermittent
Variable in duration

Response requirement is:
Variable
Unpredictable



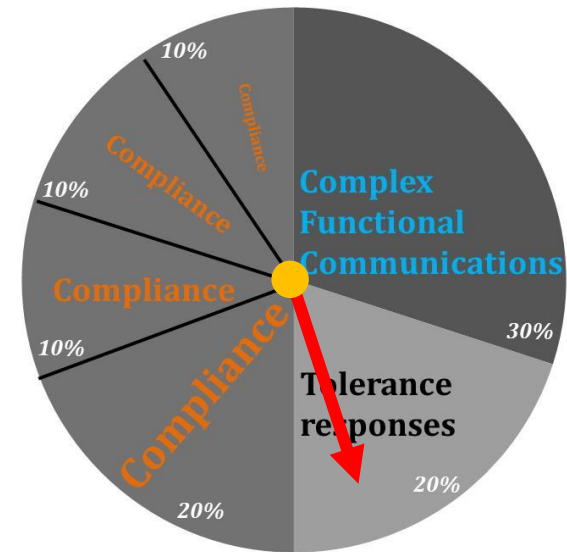
Treatment Implementation



*Materials not needed:

Laminate
Laminating machine
Glue guns
Vis a vis markers
Velcro
Tokens
Token boards
Timers
Stickers
Candies
Anything that was not already in
the child's environment!

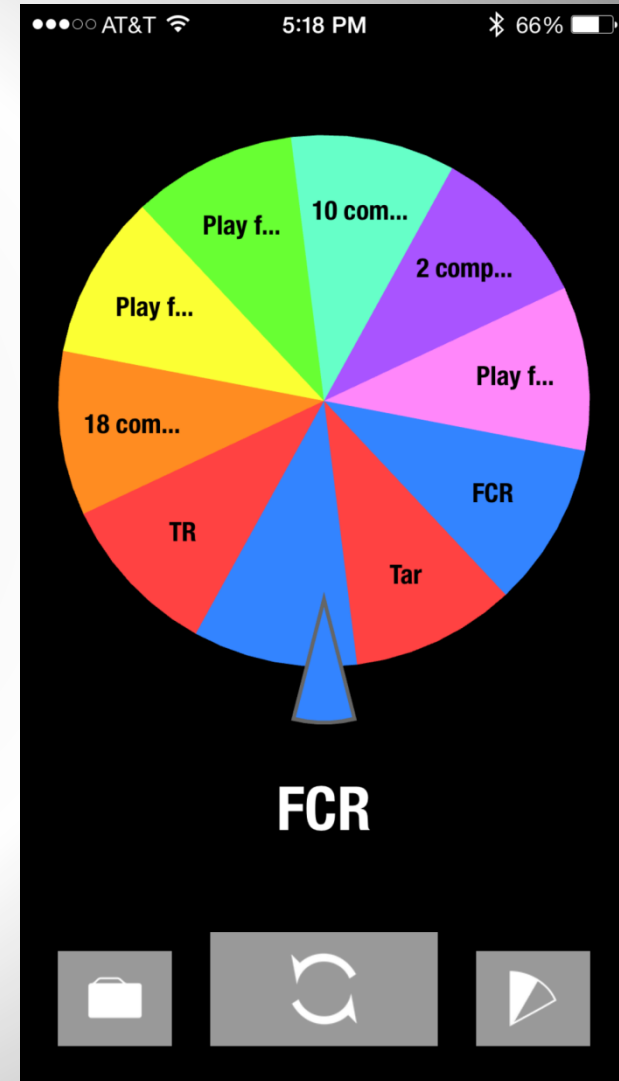
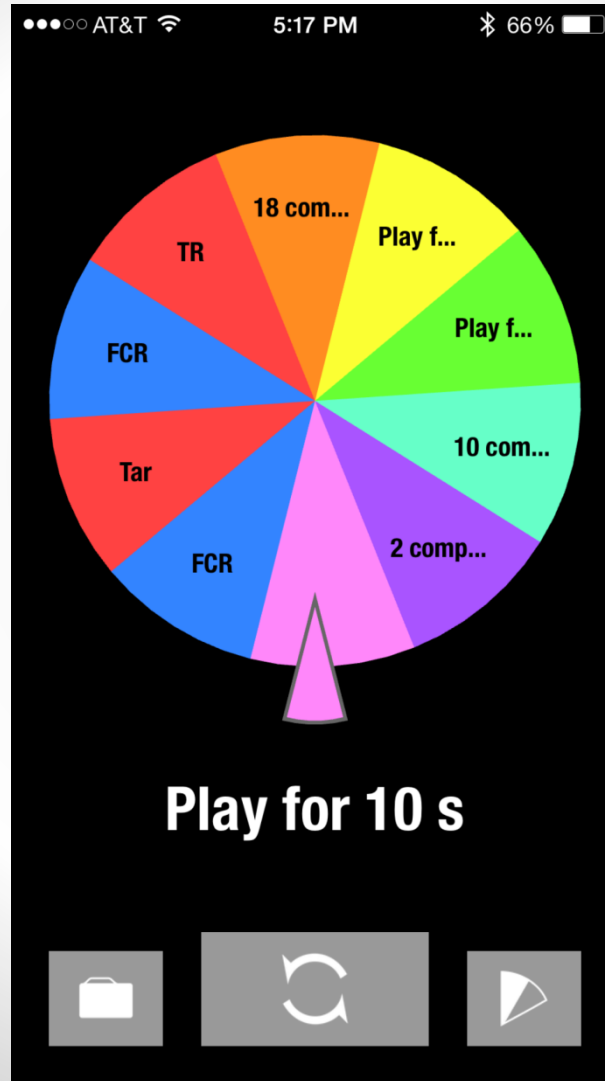
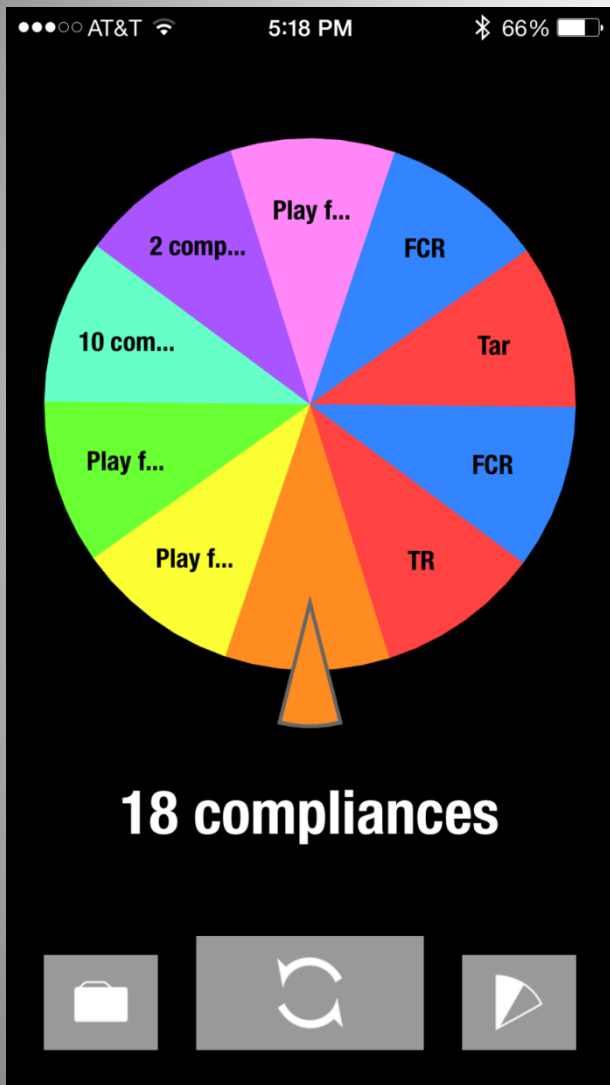
1. Spin it!
2. Keep it to yourself
3. Require that behavior next time



App called "Names in a Hat"



App called "Roundom"



IISCAs and skill-based treatments have led to **socially-validated** outcomes

Social Acceptability Questionnaire Results

Questions	Ratings			Mean
	Gail	Dale	Bob	
1. Acceptability of assessment procedures	7	7	7	7
2. Acceptability of treatment packages	7	7	7	7
3. Satisfaction with improvement in problem behavior	7	7	6	6.7
4. Helpfulness of consultation	7	7	7	7

Note. 7=highly acceptable, highly satisfied, or very helpful
1=not acceptable, not satisfied, or not helpful

from Hanley et al., 2014

3. Rate the extent to which you are satisfied with the amount of improvement seen in ■■■■■'s meltdowns.

1 2 3 4 5 6 ⑦

Not Satisfied

Highly Satisfied

Please comment:

Highly Satisfied is an understatement! He has come a long, long way in such a short time.

11. Please provide any additional comments for our team.

■■■■■ and I are very happy with how this whole process took place. We both feel our homelife and ■■■■■'s Quality of life is getting better and better. This was one of the best summers we had with him behavior wise, and best summers over all because of less behaviors. We actually took day trips to CT science museum, Boston Science Museum and Hampton Beach with ~~0~~ issues of bad behavior. We feel that without this great program, we wouldn't have even attempted these trips knowing what the usual outcome would have been.

Time Assessment

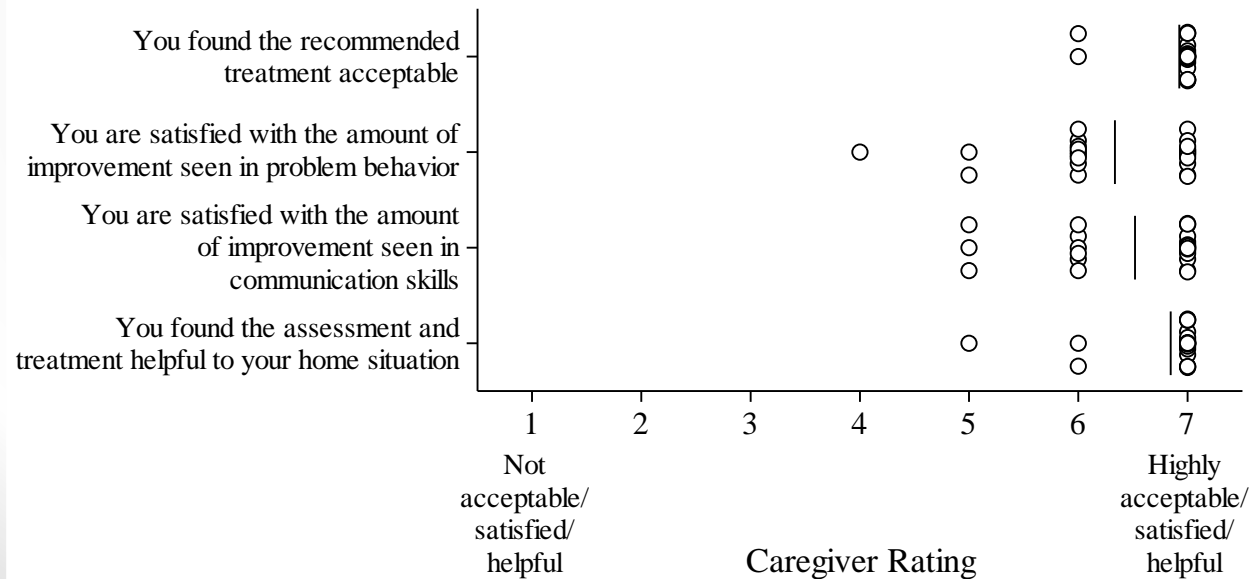
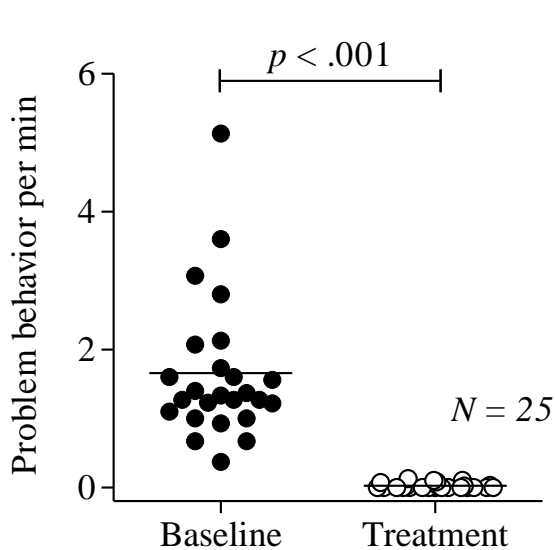
	Steps	# of Visits (1 hr each)		Cost (in US dollars)	
		Range	Mean	Range	Mean
1*	Interview	--	1	--	200
2*	Functional Analysis	1 - 4	2.3	166 - 800	467
3	Functional Communication Training	1 - 3	2	200 - 534	400
4	Complex FCT	1 - 4	2.4	200 - 860	487
5	Tolerance Response Training	2 - 7	4.6	300 - 1400	913
6	Easy Response Chaining	1 - 5	2.6	200 - 960	520
7*	Difficult Response Chaining	2 - 11	5.1	400 - 2240	1,013
8*	Treatment Extension	4 - 9	7.3	800 - 1800	1,467
Totals:		23 - 32	27		5,467
	Supervision meetings:	16 - 28	20	1000 - 1750	1250
	Report writing / planning:	--	4	--	500
<i>Grand Totals:</i>				6225 - 8650	7,217

Cost Assessment

	Steps	# of Visits (1 hr each)		Cost (in US dollars)	
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Achieving Socially Significant Reductions in Problem Behavior following the Interview-Informed Synthesized Contingency Analysis: A Summary of 25 Outpatient Applications

Jessel et al., *in press*, *JABA*



A final message

With Autism, there is a higher likelihood of problem behavior

Meltdowns

Aggression

Self-injury

References: Baghdadli, Pascal, Grisi, & Aussilloux, 2003; Horner et al., 2002; Kim et al., 2000; Murphy, Healy, & Leader, 2009; Thompson, 2009

A gravel path winds through a lush, green rural landscape. On either side of the path are low, rustic stone walls. The area is filled with various trees, including large leafy ones and evergreens, creating a sense of a peaceful, natural environment. The lighting is soft, suggesting a quiet time of day.

freedom

**from these behaviors
for persons with Autism and their families**

is attainable

It is usually attainable

without drugs

without hospitalization

without harsh punishment

**without candies, stickers,
and token boards**

It is attainable

**by first
understanding*
why the child is
engaging in the
problem behavior**

**understanding can be
realized quickly,
safely, and analytically**

It is attainable

**when children are
taught skills* to
help them navigate
our complex social
world**

***Communication
and toleration**

It is attainable

**when the skills are
maintained via
unpredictable and
intermittent reinforcement**

**which is probably the same
arrangement under which
the various forms of
problem behavior
developed**

Thanks for listening.

For more information go to:

www.practicalfunctionalassessment.com

Contact info.:

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