Why do “lifestyles” dictated by problem behavior persist for many families of children with autism and some families of children with intellectual disabilities?

Restrictive lifestyles persist partly because problem behavior of children is merely modified, medicated, mollified, micro-analyzed, remedied apart from skill development.
**PERSPECTIVE**

Commitments for Successfully Treating Severe Problem Behavior:

1. A focus on strengthening skills
   communication, toleration, & contextually appropriate behavior

2. Reliance on personalized & synthesized reinforcement contingencies
   identified via interview and analysis

3. Reliance on same schedule that developed problem behavior repertoire
   intermittent & unpredictable reinforcement

4. Skills developed in practice sessions, then extended all day

---

**Practical Functional Assessment**

Prior to treating problem behavior of children with autism

1. Conduct an open-ended interview to discover the context and outcomes that seem relevant to problem behavior

2. Conduct an IISCA to
   - Determine problem behavior sensitivity to suspected reinforcement contingency
   - Obtain a stable and sensitive baseline from which to evaluate treatment
   - Identify a properly motivating set of conditions to teach functional communication
   - Identify a sufficiently challenging set of conditions to teach delay tolerance
   - Identify a motivating set of conditions to accelerate developmental trajectory

---

**Come up with at least one question relevant to conducting a Practical Functional Assessment process**

Why not or when to use:
   MAS, QABF, FAST, descriptive assessment, conditional probability analyses, brief, trial-based, latency-based analyses, ecological “analyses,” etc.

What to do in interview when the respondent ______...?

What about when IISCA is undifferentiated, what then?
Zeke
14-year old boy
diagnosed with Autism
Engaged in Severe SIB and Aggression
1:1 in Specialized School

Problem Behavior per min
Sessions

Simple FCR
Complex FCR

Problem behavior no longer yields the reinforcers (escape to child-directed play and teacher attention)
A simple response (button press: "My way please") is prompted and reinforced with (escape to child-directed play & teacher attention)
Zeke
14-year old boy
diagnosed with Autism
Engaged in Severe SIB and Aggression
1:1 in Specialized School

### Treatment Analysis

<table>
<thead>
<tr>
<th>Session</th>
<th>BL FCT + EXT</th>
<th>Denial and Delay Tolerance Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Simple FCR
- Per min

#### Complex FCR
- Per min

#### Reinforcement (%)
- 0
- 20
- 40
- 60
- 80
- 100

#### Problem Behavior per min
- 0
- 1
- 2
- 3
- 4

#### Response to Instructions (%)
- 0
- 20
- 40
- 60
- 80
- 100

#### Treatment Extension
- 12

#### Compliance Noncomp.
- Levels: 3

### Zones
- A more interactive response
  - Shoulder tap,
  - Wait for teacher acknowledgement,
  - Two-button press
- May I, My way please
  - is prompted and reinforced

#### Responses to disappointment
- Are prompted and reinforced:
  - (Take a breath and nodding you)

#### Cues of disappointment,
- Delays to reinforcement,
- Unpredictable outcomes

Now, FCRs are reinforced half the time.
The other half, the teacher denies the bid
(e.g., say’s no, do your work without me, please)

Responses to disappointment
- Are prompted and reinforced:
  - (Take a breath and nodding you)

Cases of disappointment,
- Delays to reinforcement,
- Unpredictable outcomes
- Have now been introduced

Now, FCRs are reinforced 1/3 of the time.
TRs are reinforced 1/3 of the time.

And compliance with progressively longer and more challenging instructions is reinforced.
What is the treatment???

Intermittent and unpredictable reinforcement of life skills:
- Functional Communication
- Delay/denial tolerance
- Compliance

Hanley, Jin, Vanselow, & Hanratty (2014)
- Skill-based treatment for socially-mediated PB
Reinforcement is:
- Function-based
- Differential
- Intermittent
-Unsigned
- Variable in duration

Response requirement is:
- Variable
- Unpredictable

Treatment Implementation

1. Put these in your pocket
2. Pull one out while child is experiencing their reinforcers
3. Keep it to yourself
4. Require that behavior next time

Materials not needed:
- Laminator
- Laminating machine
- Glue guns
- Washable markers
- Markers
- Tackers
- Token boards
- Timers
- Stickers
- Candy
- Anything that was not already in the child’s environment!

App called “Names in a Hat”
App called “Roundom”

Problem Behavior per min
0.0
0.5
1.0
1.5
2.0
2.5
3.0

Simple FCR per min
0.0
0.5
1.0
1.5
2.0

Complex FCR per min
0.0
0.5
1.0
1.5
2.0

Tolerance Response per min
0.0
0.5
1.0
1.5
2.0
3.0

BL FCT + EXT

Denial
BL Denial and Delay Tolerance Training

Response Chaining

Blood

Treatment
Analysis

Gail
3-year old girl
diagnosed with Autism
Engaged in extended meltdowns with aggression
Process in Clinic and home with mother implementing

Treatment Analysis
Gail
3-year old girl
diagnosed with Autism
Engaged in extended meltdowns with aggression
Process in Clinic and home with mother implementing

Treatment Analysis
Gail
3-year old girl
diagnosed with Autism
Engaged in extended meltdowns with aggression
Process in Clinic and home with mother implementing

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

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

“Play with me”

Saying, “Okay” while glancing at person who just said “No.”

Response to Instructions (%)

0
25
50
75
100

Reinforcement (%)

0
25
50
75
100

Visits

Calendar Days (2012-2013)

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

Saying, “Okay” while glancing at parent who just said “No.”

Wait,” “Hold on,” or “in a minute”

App called “Roundom”
### Time Assessment

<table>
<thead>
<tr>
<th>Steps</th>
<th>% of Visits (Inputs)</th>
<th>Cost (in US dollars)</th>
<th>Range</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Interview</td>
<td>3</td>
<td>100</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd Functional Analysis</td>
<td>1 - 4</td>
<td>2.3</td>
<td>300 - 800</td>
<td>467</td>
</tr>
<tr>
<td>3rd Functional Communication Training</td>
<td>2</td>
<td>2.2</td>
<td>200 - 850</td>
<td>480</td>
</tr>
<tr>
<td>4th Complex FCT</td>
<td>1 - 4</td>
<td>2.8</td>
<td>200 - 800</td>
<td>467</td>
</tr>
<tr>
<td>5th Tolerance Response Training</td>
<td>3 - 7</td>
<td>6.6</td>
<td>300 - 1,800</td>
<td>913</td>
</tr>
<tr>
<td>6th Easy Response Chaining</td>
<td>1 - 2</td>
<td>2.9</td>
<td>500 - 1,000</td>
<td>433</td>
</tr>
<tr>
<td>7th Difficult Response Chaining</td>
<td>3 - 11</td>
<td>9.1</td>
<td>500 - 2,200</td>
<td>1,487</td>
</tr>
<tr>
<td>8th Treatment Extension</td>
<td>4 - 8</td>
<td>7.3</td>
<td>600 - 2,000</td>
<td>1,107</td>
</tr>
</tbody>
</table>

**Totals:** 23 - 32 27 5,467

### Cost Assessment

<table>
<thead>
<tr>
<th>Steps</th>
<th>No. of Visits (Inputs)</th>
<th>Cost (in US dollars)</th>
<th>Range</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Interview</td>
<td>1</td>
<td>100</td>
<td></td>
<td></td>
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<td>2nd Functional Analysis</td>
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<td>1,107</td>
</tr>
</tbody>
</table>

**Totals:** 23 - 32 27 5,467

### Social Acceptability Questionnaire Results

<table>
<thead>
<tr>
<th>Questions</th>
<th>Ratings</th>
<th>Gail</th>
<th>Dale</th>
<th>Bob</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Acceptability of assessment procedures</td>
<td></td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>2. Acceptability of treatment packages</td>
<td></td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>3. Indications of improvement in problem behavior</td>
<td></td>
<td>7</td>
<td>6</td>
<td>6.7</td>
<td>6.7</td>
</tr>
<tr>
<td>4. Helpfulness of consultation</td>
<td></td>
<td>7</td>
<td>7</td>
<td>7</td>
<td>7</td>
</tr>
</tbody>
</table>

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

From Harvey et al., 2018
### Personalized Social Validity Data

**Parents' Comfort Level of Presenting the Evocative Situation**

<table>
<thead>
<tr>
<th>Task</th>
<th>Comfort Levels</th>
<th>Pre-treatment</th>
<th>Post-treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Taking away toys</td>
<td>7</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>2. Telling child &quot;no&quot; when they ask for something</td>
<td>7</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>3. Giving instructions</td>
<td>7</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Date</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Interrupting child's preferred activity and telling them to do homework or other non-preferred activities</td>
<td>4</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td><strong>Risk</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Taking away cell phone or iPad at meal times</td>
<td>7</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>2. Taking away cell phone or iPad on a transition</td>
<td>7</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>3. Interrupting or correcting meal work</td>
<td>7</td>
<td>7</td>
<td></td>
</tr>
</tbody>
</table>

Note: 7=very comfortable, 1=not comfortable.

---

One more case example that illustrates our current parent training process....

(see workbook for tool)
Jordan

3-year old boy

diagnosed with "SPD"

Engaged in severe aggression &
meltdowns

Process in clinic with analyst and
mother implementing
Treatment Review

**Personalized** and **synthesized** reinforcers delivered intermittently, unpredictably, and exclusively following various chain lengths of appropriate behavior that includes **communication, toleration, and compliance**
The treatment is implemented in the most challenging context that is sufficiently convenient to repeatedly arrange.

- Referred to as the “two Cs” of context

- The treatment process begins by providing personalized and synthesized reinforcers for each and every problem behavior and then for each and every communication response.

- Trust is built by arranging for easy responses to reliably and immediately result in all reinforcers.
The first communication response taught is referred to as the Simple Functional Communication Response (sFCR). The key features of an sFCR:
- Simple (Horner & Day, 1991)
- Novel (Derby et al., 1998)
- Omnibus ("My way") (Hanley et al., 2014)
- Can be effectively prompted

The key features of initial teaching:
- Prompt SFC prior to full introduction of EO (Ward et al., 2018)
- Base on within-session results of IISCA
- Prompt response immediately and after problem behavior (Landa et al., 2018)

Shaping of the functional communication response continues (Ghaemmaghami et al., 2018)...
...until it contains:
- An obtaining a listener response (e.g., "Excuse me")
- A generative autoclitic frame (e.g., "May I have ____")
- A social nicety
- Proper tone, pace, volume, articulation

It is then referred to as a Complex Functional Communication Response (cFCR)
(e.g., "Excuse me [pause, wait for acknowledgement], May I have my way, please?

---

![Graph](image-url)
The cFCR is sometimes differentiated into specific mands (Ward et al., 2018)

- An obtaining a listener response
- A break response
- An access to preferred toys response
- An attention recruitment response

(e.g., “Excuse me [pause, wait for acknowledgement]. May I have a break, please? ...May I have my stuff please”...“Will you play with me”)
A tolerance response is then taught
(Hanley et al., 2014; Santiago et al., 2016; Ghaemmaghami et al., 2016)

Now Sr is intermittent and unpredictable

Typical 5-trial sequence in early chaining phase:

<table>
<thead>
<tr>
<th>Trial 1 Sr</th>
<th>Trial 2 Sr</th>
<th>Trial 3 Sr</th>
<th>Trial 4 Sr</th>
<th>Trial 5 Sr</th>
</tr>
</thead>
<tbody>
<tr>
<td>cFCR</td>
<td>TR</td>
<td>cFCR</td>
<td>cFCR</td>
<td>TR</td>
</tr>
</tbody>
</table>

Sr = synthesized reinforcement
cFCR = complex functional communication response
TR = tolerance response

*We just introduced disappointment and ambiguity at the same time—we stay here until there are no negative emotional responses*

Then chaining of contextually appropriate behavior (CAB) and more Sr intermittency and unpredictability follows

Typical 5-trial sequence in early chaining phase:

<table>
<thead>
<tr>
<th>Tr 1 Sr</th>
<th>Tr 2 Sr</th>
<th>Tr 3 Sr</th>
<th>Tr 4 Sr</th>
<th>Tr 5 Sr</th>
</tr>
</thead>
<tbody>
<tr>
<td>cFCR</td>
<td>1hCAB</td>
<td>2eCAB</td>
<td>TR</td>
<td>3eCAB</td>
</tr>
</tbody>
</table>
Then chaining of contextually appropriate behavior (CAB) and more Sr intermittency and unpredictability follows

Typical 5-trial sequence in early chaining phase:

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<th>Trial 2 Sr</th>
<th>Trial 3 Sr</th>
<th>Trial 4 Sr</th>
<th>Trial 5 Sr</th>
</tr>
</thead>
<tbody>
<tr>
<td>cFCR</td>
<td>1hCAB</td>
<td>2eCAB</td>
<td>TR</td>
<td>3eCAB</td>
</tr>
</tbody>
</table>

Sr = synthesized reinforcement
CFCR = complex functional communication response
TR = tolerance response
eCAB = easy contextually appropriate behavior
(e.g., completion of mastered task, play with alternative but preferred materials)
hCAB = hard contextually appropriate behavior
(e.g., accurate completion of challenging math problems, independent play w/ mundane toys)

The average chain length gets progressively longer as success is experienced at each step:

<table>
<thead>
<tr>
<th>Step</th>
<th>Trial 1 Sr</th>
<th>Trial 2 Sr</th>
<th>Trial 3 Sr</th>
<th>Trial 4 Sr</th>
<th>Trial 5 Sr</th>
<th>Mean #Rs/Sr</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>cFCR</td>
<td>TR</td>
<td>1eCAB</td>
<td>2eCAB</td>
<td>3eCAB</td>
<td>4.6</td>
<td>3-6</td>
</tr>
<tr>
<td>2</td>
<td>cFCR</td>
<td>1hCAB</td>
<td>2eCAB</td>
<td>3eCAB</td>
<td>TR</td>
<td>5</td>
<td>3-7</td>
</tr>
<tr>
<td>3</td>
<td>5eCAB</td>
<td>cFCR</td>
<td>1hCAB</td>
<td>3eCAB</td>
<td>TR</td>
<td>5.6</td>
<td>3-9</td>
</tr>
<tr>
<td>4</td>
<td>2hCAB</td>
<td>cFCR</td>
<td>4eCAB</td>
<td>TR</td>
<td>6eCAB</td>
<td>6.2</td>
<td>3-10</td>
</tr>
<tr>
<td>5</td>
<td>cFCR</td>
<td>6hCAB</td>
<td>TR</td>
<td>4hCAB</td>
<td>2eCAB</td>
<td>6.2</td>
<td>3-10</td>
</tr>
<tr>
<td>6</td>
<td>5hCAB</td>
<td>cFCR</td>
<td>7eCAB</td>
<td>TR</td>
<td>5hCAB</td>
<td>6.8</td>
<td>3-11</td>
</tr>
<tr>
<td>7</td>
<td>10hCAB</td>
<td>cFCR</td>
<td>10hCAB</td>
<td>TR</td>
<td>TR</td>
<td>7.6</td>
<td>3-13</td>
</tr>
<tr>
<td>8</td>
<td>2eCAB</td>
<td>10hCAB</td>
<td>cFCR</td>
<td>13eCAB</td>
<td>TR</td>
<td>8.8</td>
<td>3-16</td>
</tr>
<tr>
<td>9</td>
<td>13eCAB</td>
<td>2hCAB</td>
<td>cFCR</td>
<td>10hCAB</td>
<td>TR</td>
<td>8.8</td>
<td>3-16</td>
</tr>
</tbody>
</table>
**Typical 5-trial sequence in later chaining phase:**

<table>
<thead>
<tr>
<th>Trial 1 Sr.</th>
<th>Trial 2 Sr.</th>
<th>Trial 3 Sr.</th>
<th>Trial 4 Sr.</th>
<th>Trial 5 Sr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10hCAB</td>
<td>3eCAB</td>
<td>20hCAB</td>
<td>TR</td>
<td>1FCR</td>
</tr>
</tbody>
</table>

Sr  = synthesized reinforcement  
cFCR  = complex functional communication response  
TR  = tolerance response  
eCAB  = easy contextually appropriate behavior  
hCAB  = hard contextually appropriate behavior

**By last step:** Average 10 responses per Sr (range, 3-23)

- Now gapping
  - Longer chains with sometimes long gaps between chain lengths
Some emphases:

- Progressively increase the average amount of behavior (not just time) required to terminate the delay (Ghaemmaghami et al., 2016)
- Terminate the delay for various amounts of behavior
  (sometimes expect very little behavior, sometimes expect longer or more complex types of behavior during the delay)
- Probably best to not signal how much behavior is required to terminate the delays

With only Progressive Reinforcement Delay (no chaining):

![Graph showing the relationship between delay and behavior response rate. As delay increases, FCR weakens & probability of PB increases.]

Time-based vs. Contingency-based Progressive Delay

(Lead Author: Mahshid Ghaemmaghami)

![Graph comparing time-based and contingency-based progressive delays. The graph shows the number of responses per minute over sessions. The time-based delay shows a steady increase in responses, while the contingency-based delay shows a fluctuation in responses, indicating a weaker FCR and increased probability of PB.]
**Important TIPS**

1. Always provide immediate or for some FCRs.
2. Teach an appropriate response to cues of delay, denial, or disappointment.
3. Progressively increase the average amount of behavior (not just time) required to terminate the delay.
4. Terminate the delay for various amounts of behavior (sometimes expect very little behavior sometimes request larger or more complex types of behavior during the delay).
5. Probably best to not signal how much behavior is required to terminate the delays.

---

Look at average increase in number of behavior required for Sr.

Look at the increase in total behaviors per session.
 Sessions 10 20 30 40 50 60

Topographical Response Criteria

Numerical Response Criteria

PB 0
SFC 10
IFC 20
FCC 30
FC+TR 40
CFC+TR 50
CFC+TR+3 IsF 60
CFC+TR+5 IsF 70
CFC+TR+7 IsF 80
CFC+TR+2 IsF 90
CFC+TR+4 IsF 100
CFC+TR+6 IsF 110
CFC+TR+10 IsF 120
CFC+TR+13 IsF 130
CFC+TR+20 IsF 140

Total Responses
Average Responses

Functional Communication Training
Tolerance Response Training
Compliance Chaining

Then Parents/Staff implementing in varied contexts during long sessions

1 or 2 Experts implementing in 1 or 3 practice contexts during short sessions (5 min or 5 trials)

Visits

2
Calendar Days
34
2/9
2/11
56 7 8 9 10 11 12
2/13
2/16
2/18
2/21
2/23
2/25
2/28
3/1
3/4
13
3/6
14 15 16
3/9
3/12
3/15
18
3/18
19
3/20
20
3/24
21
3/27
22
3/29
23
4/2
24
4/3
4/5
251
HomeClinic
2/7

BL (Test Sessions from IISCA)

Response Criterion

Easy
Hard

Now parents/staff are introduced

Note the reset

• elimination of long chains from requirement when parent is introduced

Now more contexts

Note the reset

• elimination of long chains from requirement when new context is introduced

Now longer sessions

Note the reset

• elimination of long chains from requirement when longer sessions are introduced
At the end of treatment:

many appropriate behaviors do not yield reinforcement immediately, but there is no delay to reinforcement per se

Consider this last practice session....

<table>
<thead>
<tr>
<th>Trial 1 Sr.</th>
<th>Trial 2 Sr.</th>
<th>Trial 3 Sr.</th>
<th>Trial 4 Sr.</th>
<th>Trial 5 Sr.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10hCAB</td>
<td>3eCAB</td>
<td>20hCAB</td>
<td>TR</td>
<td>cFCR</td>
</tr>
</tbody>
</table>

At the terminal schedule:

many appropriate behaviors do not yield reinforcement immediately, but there is no delay to reinforcement per se

Consider this session....

Due to chaining of appropriate responses
And, non-reinforcement of a response (e.g., a mand) induces another appropriate response (e.g., tolerance response) as opposed to problem behavior.

At the terminal schedule:

- An average of 11 appropriate social responses occur per reinforcer (range 3–24)
- One immediately reinforced social response for every 10 emitted

At the terminal schedule:

- 54 appropriate social responses occur per 5-trial session
- Reinforcer periods range from 30 s to 10 min (mode: 2 min)
The average chain length is progressively increased, but communication, toleration, and short/unexpected contextually-appropriate behavior chains are reinforced sometimes, even at the end of treatment.

Shorties never go away.
This way we keep hope alive!
e&hCAB = [easy and hard] contextually appropriate behavior; in dep Rs = independent responses; RP = relevant people; RC = relevant context; RTP = relevant time period

Notes:

<table>
<thead>
<tr>
<th>Step</th>
<th>Objectives</th>
<th>Responses</th>
<th>Reinforced</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>Extending Effects to Relevant Time Periods cFCR/TR/e&amp;hCAB w/RP in RC over RTP</td>
<td>47</td>
<td>TR 13eCAB 2hCAB cFCR 10hCAB 8.8</td>
</tr>
<tr>
<td>22</td>
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<td>Extending Effects to Relevant People cFCR/TR/e&amp;hCAB w/RP</td>
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<td>cFCR 2hCAB 7eCAB 10hCAB TR 7.6</td>
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<td>3hCAB cFCR 7eCAB TR 5hCAB 6.8</td>
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<td>Finding the Balance / Task Revaluing cFCR/TR/e&amp;hCAB</td>
<td>31</td>
<td>cFCR 3hCAB 10eCAB TR 20hCAB 10</td>
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<td>Finding the Balance / Task Revaluing cFCR/TR/e&amp;hCAB</td>
<td>29</td>
<td>TR 13eCAB 2hCAB cFCR 10hCAB 8.8</td>
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<td>Finding the Balance / Task Revaluing cFCR/TR/e&amp;hCAB</td>
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<td>2eCAB 10hCAB cFCR 13eCAB TR 8.8</td>
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<td>11</td>
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<td>26</td>
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<td>Building Stamina while Keeping Hope Alive cFCR/TR/e&amp;hCAB</td>
<td>24</td>
<td>cFCR 5eCAB 3hCAB 7eCAB TR 6.8</td>
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<td>2hCAB cFCR 4eCAB TR 6eCAB 6.2</td>
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<td>8</td>
<td>Building Stamina while Keeping Hope Alive cFCR/TR/e&amp;hCAB</td>
<td>21</td>
<td>TR 5eCAB cFCR 3hCAB 1eCAB 5.6</td>
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<td>7</td>
<td>Preparing for Inevitable Ambiguity cFCR/TR/eCAB</td>
<td>17</td>
<td>1eCAB 2eCAB cFCR TR 1eCAB 4.6</td>
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<tr>
<td>6</td>
<td>Preparing for Inevitable Ambiguity cFCR/TR/eCAB</td>
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<td>TR 1eCAB cFCR 1eCAB cFCR TR 4</td>
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<td>5</td>
<td>Preparing for Inevitable Disappointment cFCR/TR 12</td>
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<td>3</td>
<td>Improving Form iFCR</td>
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</tr>
<tr>
<td>2</td>
<td>Shifting to Appropriate / Building Trust sFCR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Verifying hunch / Building Trust</td>
<td></td>
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</tr>
</tbody>
</table>

And remember....
Longies are initially removed when transitioning to new stimulus conditions (that have historical relevance)
Longies get reintroduced after success with smaller chains

Use this as a general guide for implementing this progressive treatment

Pivoting:
- Problematic and problematic conditions delivered intermittently, unpredictably, and exclusively
- Following various chain lengths of appropriate behavioral tokens that includes communication, iteration, and compliance
11/15/2017

Let’s talk logistics

**Time required:** 12-36 hours (mean 24 hours)

**Distribution of hours:** Flexible
- 5 min sessions / 1 hr visits / 3x per wk / about 2-3 mos total
- 5 min sessions / 4 hrs per day / 5x per wk / about 2 wks total

**Implementation:** Can be Direct or a combination of Direct and Indirect services by BCBA

**BCBA:** 5 min sessions / 1 hr visits / 2x per wk

**Para or RBT:** 5 min sessions / 4 hrs per day / 5x per wk / about 6 wks

**Setting:** Any, but choose one or two safe and convenient locations at start

**In the meantime:** Business as usual or Safety Protocol

**PIVOT (if time allows)**

Can we begin to address the other core deficits of autism (language and social) while addressing stereotypy?

Can we begin to allow the child more control over where and when to engage in stereotypy?

Can we make the treatment more flexible so it fits into everyday life a little better?

I think we can.
New Alternative: Skill-Based Treatment

Permission based model in which communication, toleration, and contextually appropriate behaviors are strengthened
(adapted from Hanley, Jin, Vanselow, & Hanratty, JABA, 2014)

1. Teach child to request access to stereotypy
   (via blocking and contingent access to stereotypy)

2. Teach child to tolerate denials of mands for stereotypy
   (via blocking and contingent, intermittent, and unpredictable access to stereotypy)

3. Teach child to engage in contextually appropriate behavior
   (via prompting, blocking and contingent, intermittent, and unpredictable access to stereotypy)

Slaton et al. (2017)

- Combination of both treatment packages (Slaton et al., 2016, & Hanley et al., 2014)

Participants

<table>
<thead>
<tr>
<th>Name</th>
<th>Age</th>
<th>Diagnosis</th>
<th>Communication</th>
<th>Work tasks</th>
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</thead>
<tbody>
<tr>
<td>Grant</td>
<td>7</td>
<td>Autism</td>
<td>1-2 word phrases</td>
<td>Numbers, letters, sight words, pictures, matching</td>
</tr>
<tr>
<td>Milo</td>
<td>12</td>
<td>Autism</td>
<td>No phrases</td>
<td>Match and identify objects, pictures, numbers, letters; short ADL tasks</td>
</tr>
<tr>
<td>Marco</td>
<td>21</td>
<td>Autism</td>
<td>1-3 word phrases</td>
<td>Leisure and time management on iPad</td>
</tr>
</tbody>
</table>
### Participants: stereotypy topographies

<table>
<thead>
<tr>
<th></th>
<th>Grant</th>
<th>Milo</th>
<th>Marco</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• Hand flapping</td>
<td>• Hand flapping</td>
<td>• Pacing or galloping</td>
</tr>
<tr>
<td></td>
<td>• Finger wiggling</td>
<td>• Tapping on teeth</td>
<td>• Jumping</td>
</tr>
<tr>
<td></td>
<td>• Object flapping</td>
<td>• Rubbing or poking face</td>
<td>• Tapping body, furniture</td>
</tr>
<tr>
<td></td>
<td>• Clapping</td>
<td>• Finger play</td>
<td>• Hair twirling</td>
</tr>
<tr>
<td></td>
<td>• Holding objects to eyes and rotating</td>
<td>• Shaking objects</td>
<td>• Knuckle cracking</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Instructional Baseline Tasks

- Match pictures in an array of 6
- Match letters in an array of 6
- Match numbers in an array of 6
- Identify (touch) pictures in an array of 6
- Sort objects in an array of 3
- Unpack backpack
- Put on shirt (over his current shirt)

### FCT

- 10 trial sessions
- Simple FCR: "play please"
- Complex FCR: "Can I play please?"
- Immediate vocal model, faded within session
- All FCRs were immediately prompted
- Criteria: 3 consecutive sessions with optimal FCRs and stereotypy at 5% or less during 5-
Response Chaining

- 20 trial sessions
- 2 trials: FCR produced the S+
- 6 trials: TR produced the S+
- 6 trials: compliance with work produced the S+
- Criteria: 3 consecutive sessions with 80% accuracy (or 100% for 2), optimal FCRs and TRs, and stereotypy at 5% or less during S-
Discrimination index

- Proportion of stereotypy that occurred during S+ 
- Expressed as a decimal
  - 0.7 – 1.0 = discriminated responding
  - 0.5 = indiscriminate responding
The treatment that involved teaching a request for stereotypy, teaching an appropriate response to the denial of that request, and teaching the individual to complete an increasing number of demands before earning access to stereotypy was acceptable.

The amount of behavior change (i.e., the effects of treatment) was acceptable or sufficient.

The overall goals of this treatment were acceptable, appropriate, and important for the individual.

I would recommend this treatment package to other therapists or providers who are attempting to decrease stereotypy and increase appropriate engagement.

Social Validity

1 = highly disagree  7 = highly agree

<table>
<thead>
<tr>
<th>Question</th>
<th>Grant</th>
<th>Milo</th>
<th>Marco</th>
</tr>
</thead>
<tbody>
<tr>
<td>The treatment that involved teaching a request for stereotypy, teaching an appropriate response to the denial of that request, and teaching the individual to complete an increasing number of demands before earning access to stereotypy was acceptable.</td>
<td>7</td>
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<td>7</td>
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<tr>
<td>The amount of behavior change (i.e., the effects of treatment) was acceptable or sufficient.</td>
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<td>7</td>
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<tr>
<td>The overall goals of this treatment were acceptable, appropriate, and important for the individual.</td>
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<td>7</td>
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<td>7</td>
</tr>
</tbody>
</table>

Final Take-Home Points

Treatment for stereotypy can (should?) be...

- function-based
- comprehensive
- involve a strong, intermittent, and unpredictable contingency to inhibit stereotypy and do something else contextually appropriate ... in order to engage in stereotypy
For more support to engage this process go to:
www.practicalfunctionalassessment.com

Good luck with all that you do for all who you teach and provide care

For more information go to:
www.practicalfunctionalassessment.com