Evidence-Based Practice Checklist: Dotting your i's and crossing your t's to success

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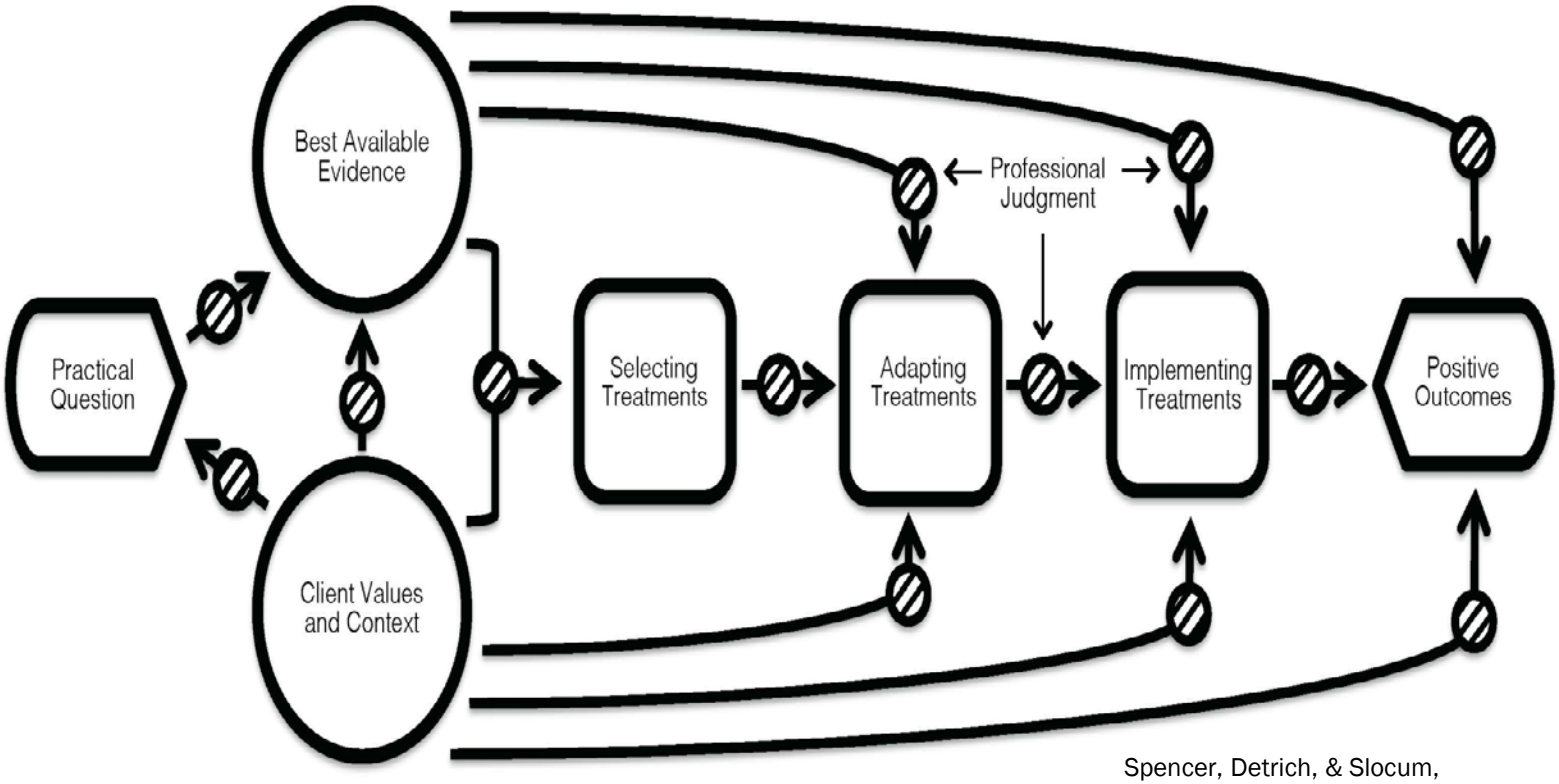
Why use the EBP decision-making model?

- We are likely to produce the best outcomes when we following the EBP decision-making model
- We are likely to meet our ethical obligations when we follow this decision-making process

Reminder of the EBP decision-making model



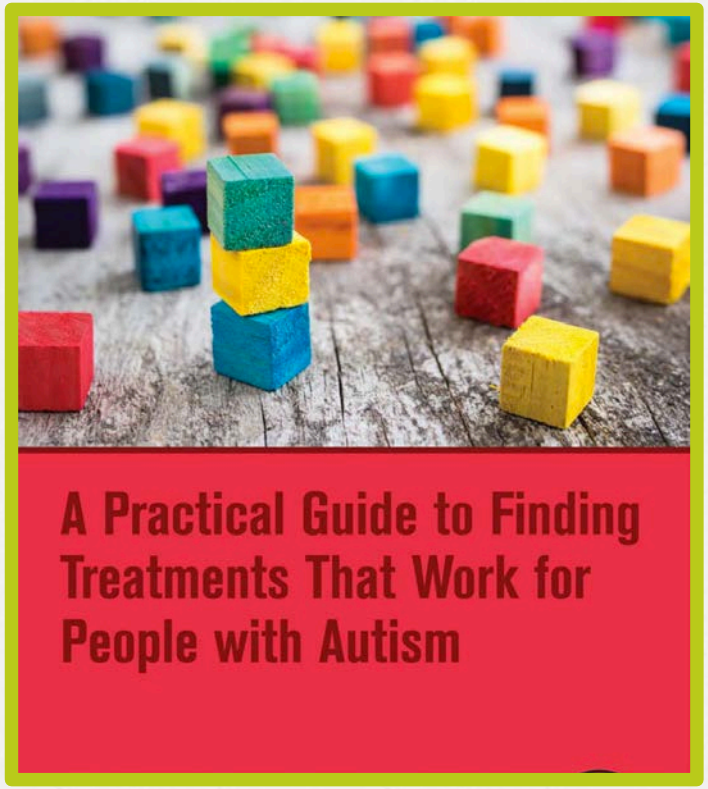
Spencer, Detrich, & Slocum, 2012

Why use the EBP checklist?

- Prompts the evidence-based practitioner to think about ALL relevant evidence
- It is hard to remember when and how to incorporate all aspects of EBP

Book

- Primer for how to conduct EBP.
- Target population: Autism Spectrum Disorder
- Checklists in Appendices

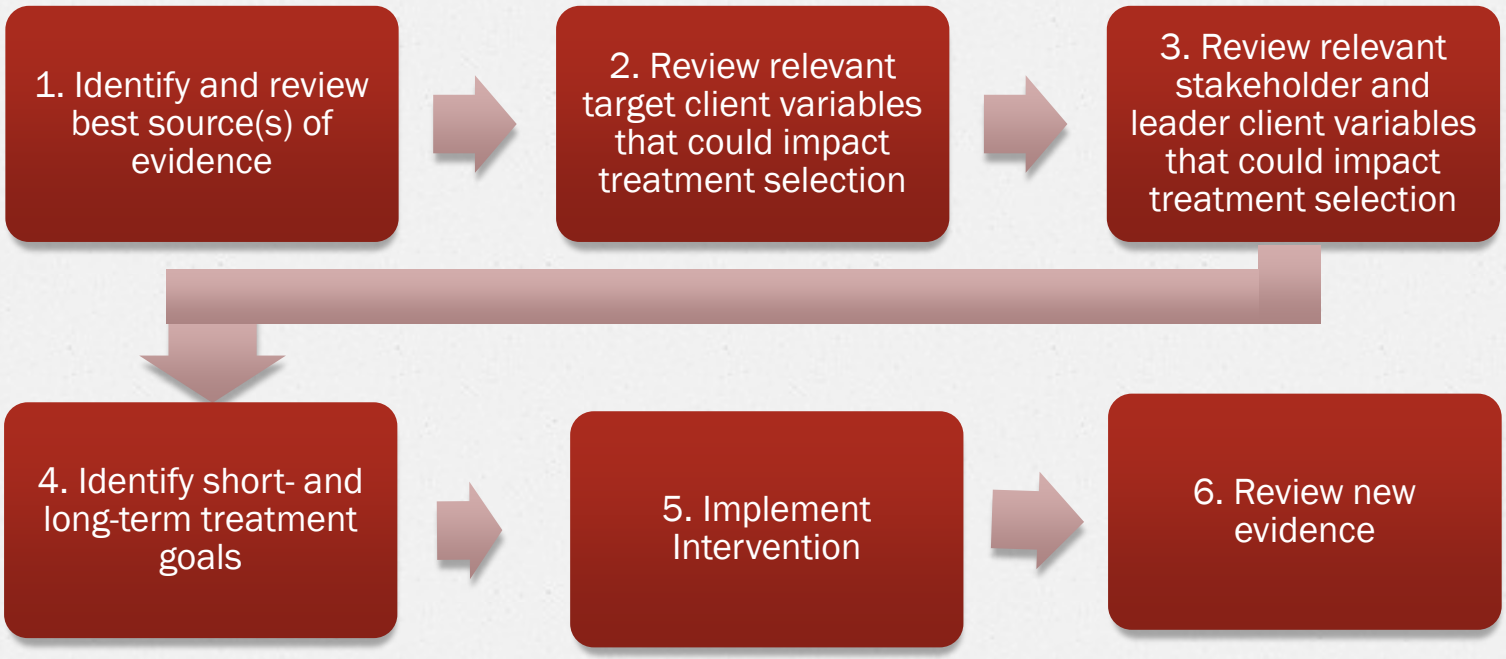


Where should I begin?

- Ask the practical question that is relevant in the current case

"How can we increase Sally's social initiations towards peers?"

Steps of Evidence-Based Practice



Step One

Begin by identifying the best source(s) of evidence – that answers your practical question!

___ Systematic Reviews & Meta Analysis
___ Narrative Review (consensus or critical)
___ Practice Guidelines
___ Principles
___ Client History
    ___ Confounding Explanations
    ___ Treatment Fidelity
    ___ Different Environmental Conditions
___ Current Client Data
    ___ Functional Behavior Assessment
    ___ Other Relevant Data

Source of Evidence: Systematic Reviews and Meta-Analysis

"Is there evidence from a credible systematic review or meta-analysis that answers the practical question?"

Pros and Cons of Systematic Reviews & Meta-analyses

Client History

- If a treatment has worked for a client in the past, it should be given a high priority when selected from an array of treatment options if…

"Is there credible evidence from the client's history that shows one of the remaining treatments will not work?"

Confounding explanations

A treatment may look like it has worked before but it is really due to something else.

A treatment might not have “worked” before because it was not implemented accurately…

Treatment Fidelity

Extent to which an intervention is *accurately implemented*

Did you measure if the treatment delivered properly?

Ask if different conditions exist now

Even if a treatment was not effective in the past and it was accurately implemented, the EBP should consider if environmental conditions are substantially different.

Current Client Data

"Are there current data that have been (or should be) collected to help identify the most effective treatment?"

Using Current Client Data

Functional Behavior Assessment

- Generate a strong hypothesis about the function of the behavior

Using Current Client Data

Other Relevant Data

Example: RTI

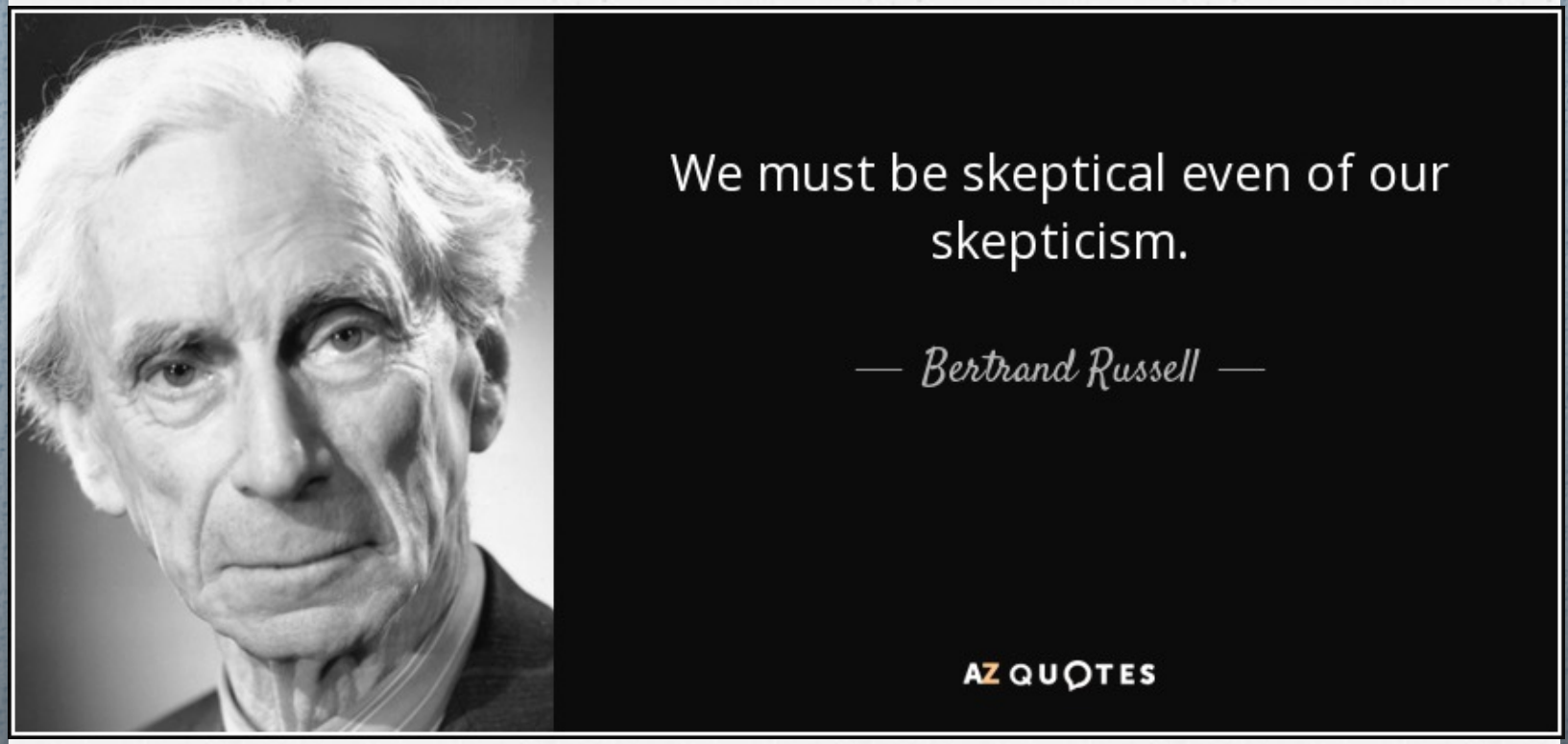
Any evidence that helps identify the "best" treatment option

Question current client data

Do the data capture all relevant information?

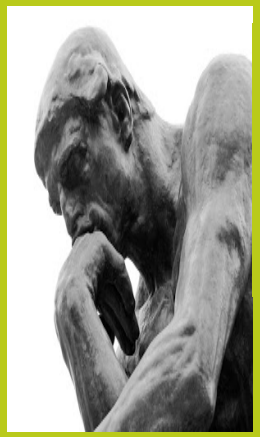
Are the outcomes biased in any way?

Now that I'm skeptical…



Use all of these sources of information

- Systematic reviews
- Client History
- Current Client Data



- Professional Judgment is required to weigh the evidence

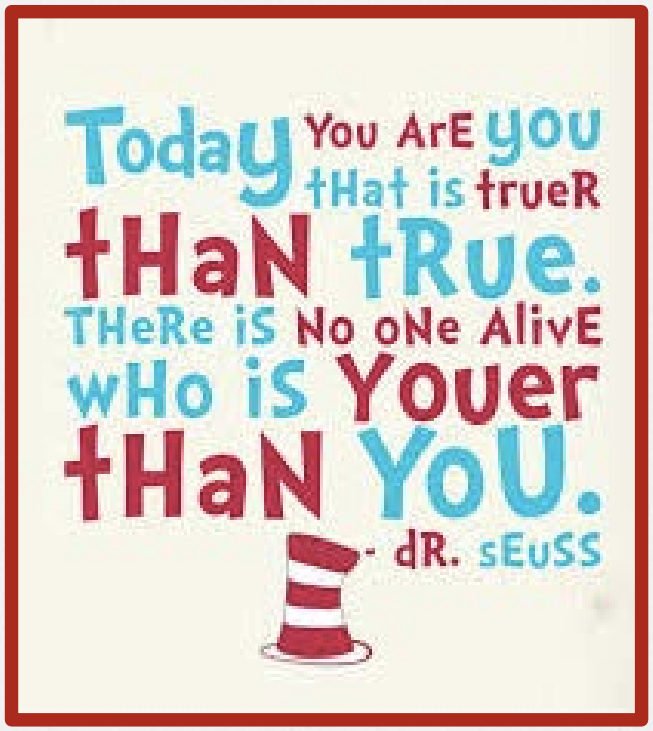
After identifying the best sources of evidence

- Create a list of “best” treatments based on the answers to those questions

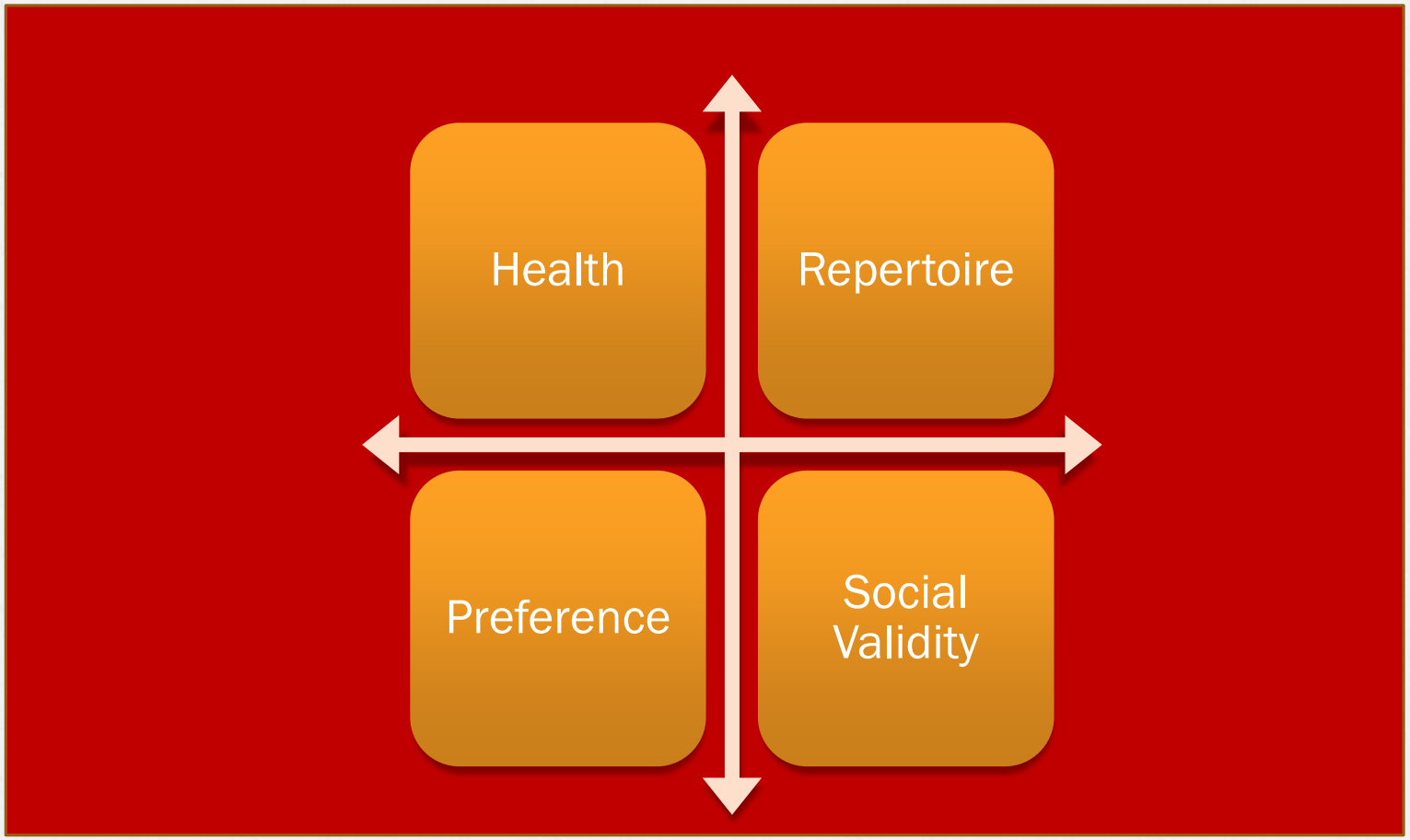
Prioritize those you believe are the best

Step two

- Review relevant *target client variables* that could impact treatment selection



What's involved?



☑ Health

___ Medication

___ Medical and Comorbid Conditions

___ Biological Variables

___Mental Health

“Are there health reasons to strengthen or weaken the likelihood a treatment should be selected?”

Consider Medications

- Ask about medication usage both at the *onset* of treatment and *throughout* service delivery

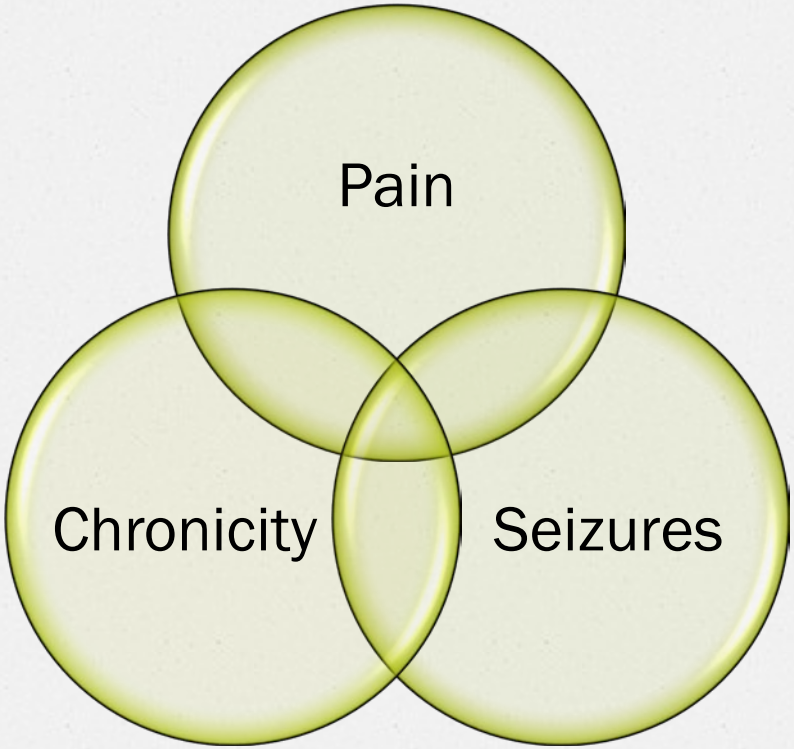
Example

Think about a client you have had that has complained of any of the following:

- Headaches
- Gastrointestinal discomfort
- Being tired

Did you become familiar with medications taken by client and consider possible side effects of medication?

Medical/Comorbid Conditions



Example

Are there some treatments that must be ruled out because of certain medical conditions?

- Client with a history of a heart condition should not be held in restraints

(Ishida, Katagriri, Uchida, Takeuchi, Sakurai, Watanabe, & Mimura, 2014).

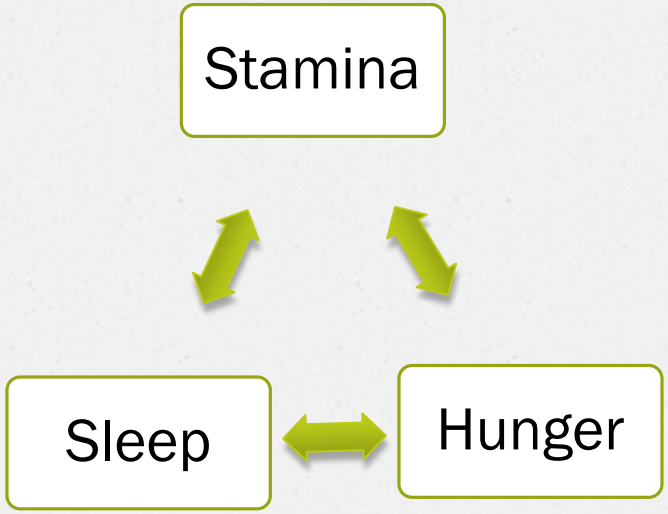
Example

15-30% of individuals with ASD have epilepsy

Because epilepsy can be associated with seizure-induced aggression, are we taking into account comorbid medical conditions that may be causing certain behaviors?

(Iterson, Jong, & Zijlstra, 2015).

Biological Variables



- Can have a direct and indirect impact on behavior by altering the *rate* of behavior and the *value* of reinforcers

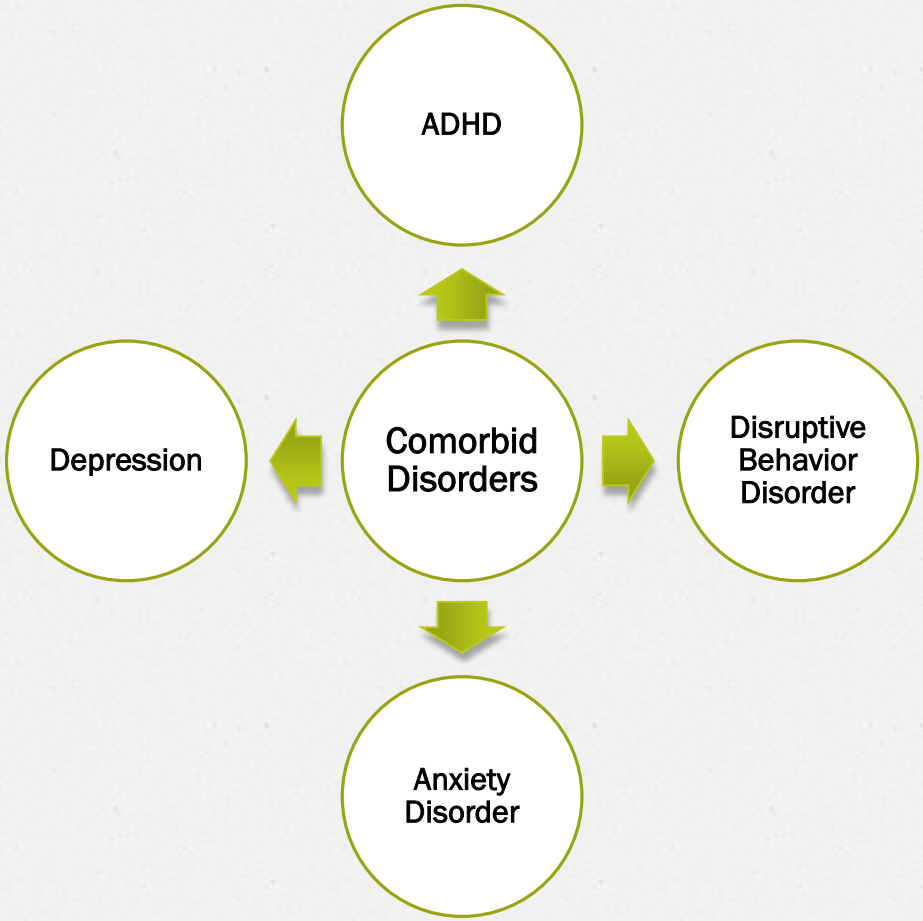
Example

Your client just had a Happy Meal from McDonalds. Now, you are starting a therapy and what is their reinforcer?

...Fruit Snacks!!

How motivated is your client to work for fruit snacks when they just ate lunch?

Mental Health

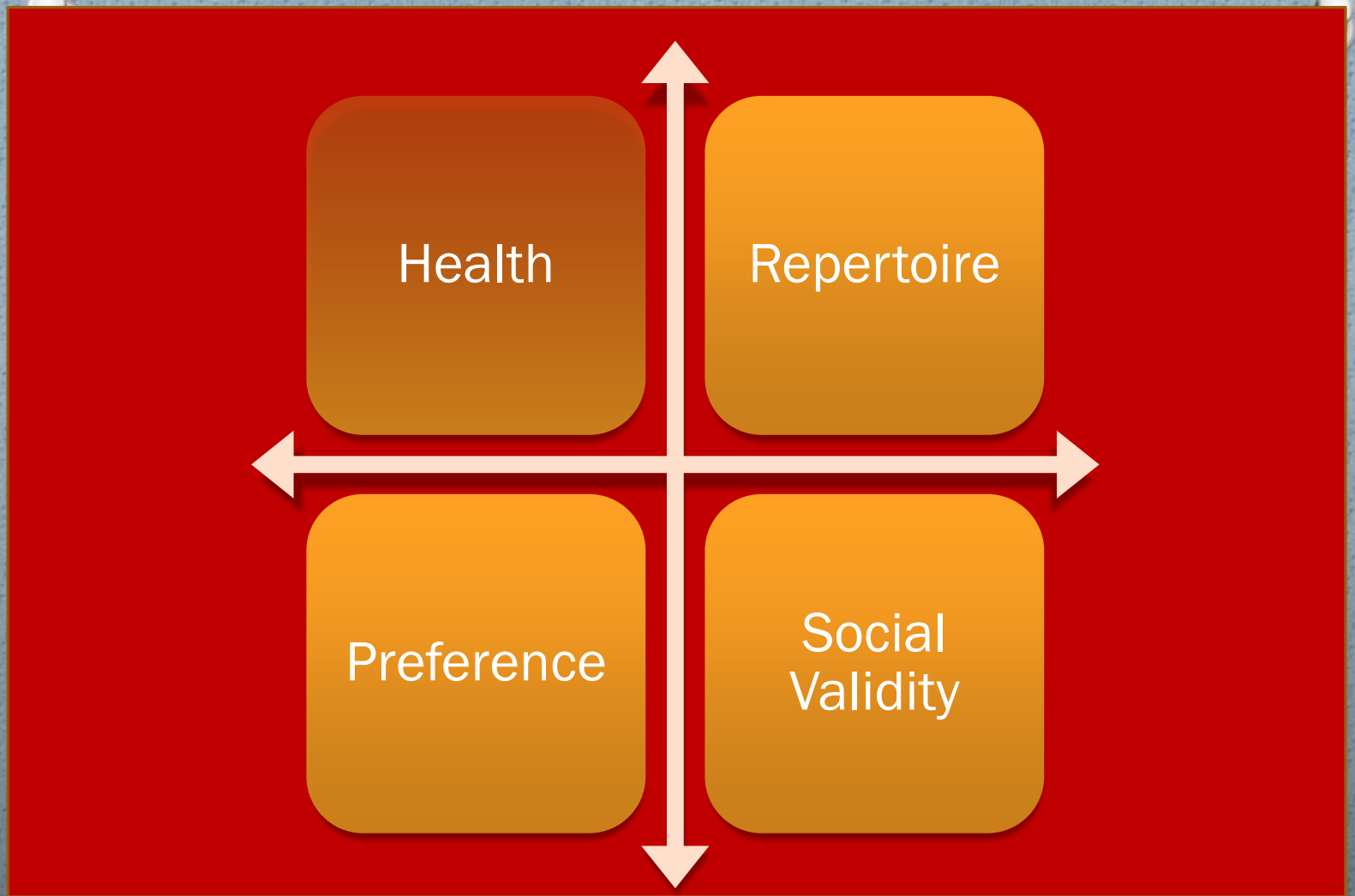


Example

- Many individuals with ASD hold co-occurring (comorbid) diagnoses. These comorbid conditions should impact treatment decisions.
- Use comorbid diagnosis to help interpret behavior.
- Abuse associated with anxiety and depression. Almost 2/3rds of girls with disabilities experience some form of abuse by the time they are 18 years old.

Example

- Client has a history of being bullied.
- Begin process of selecting best treatment
- Peer-mediated intervention is likely not appropriate for a client - certainly not without very significant supervision – and possibly not at all.


Health
Repertoire
Preference
Social Validity

Repertoire

___ Prerequisite Skills

___ Behavioral Cusps

Definitions & Examples

What are Pre-requisite Skills?

- Skills that are already mastered
- Pre-requisite skills must be mastered in order for a treatment to be effective

Video Modeling Pre-requisites:

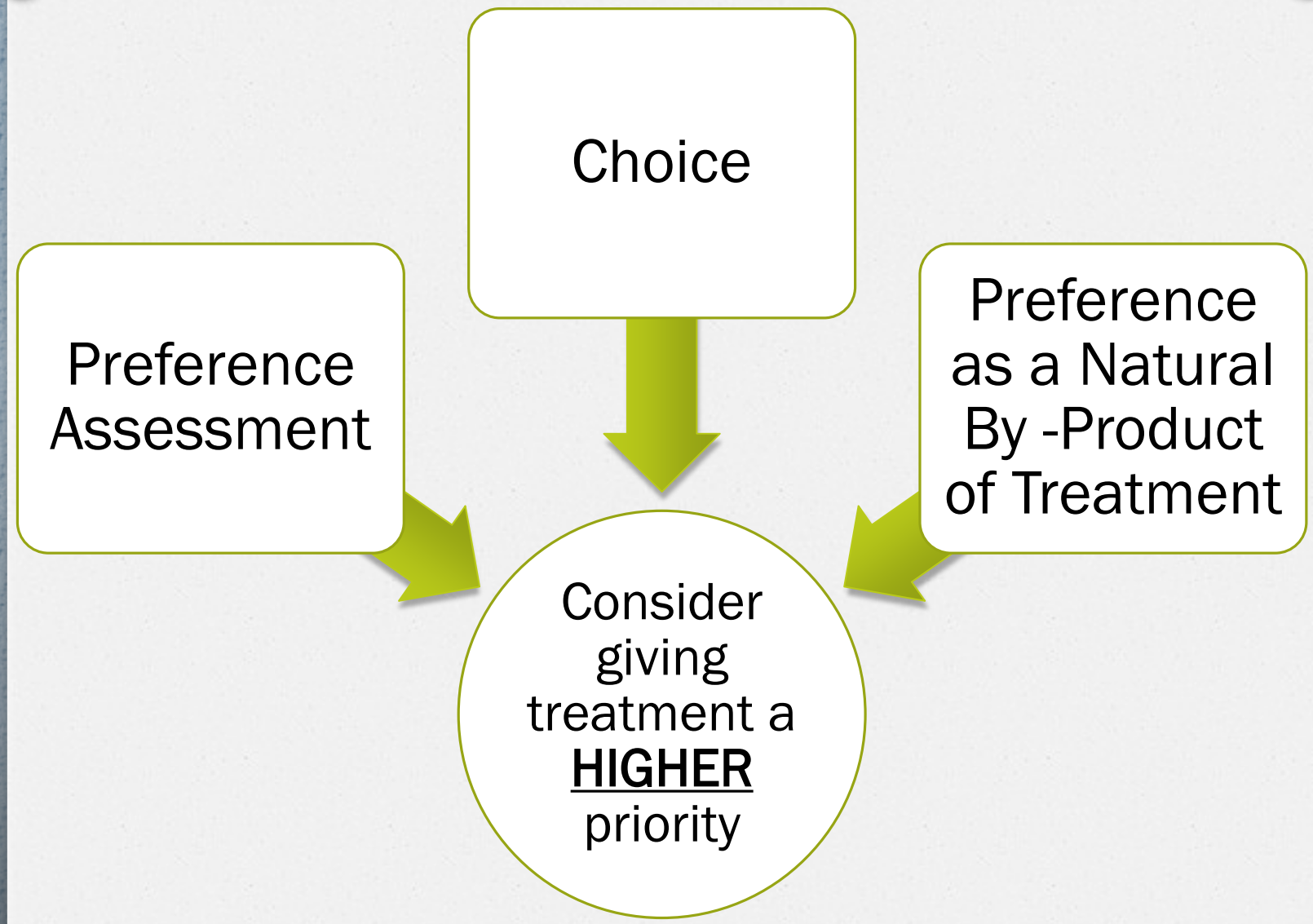
- Remain still for period of time
- Attend to all pertinent aspects of the model
- Imitate steps
- Generalize

☑ Preference

___Preference Assessment

___ Choice

___Preference as a Natural By-Product of Treatment


Choice
Preference Assessment
Preference as a Natural By -Product of Treatment
Consider giving treatment a HIGHER priority

☑ Social Validity

___ Quality of Life

___ Generalization

___ Treatment Acceptability

Social Validity

Give a higher priority to treatments that:

- Improve quality of life
- Increase likelihood of generalization
- Acceptable to target client

Don’t Forget!!

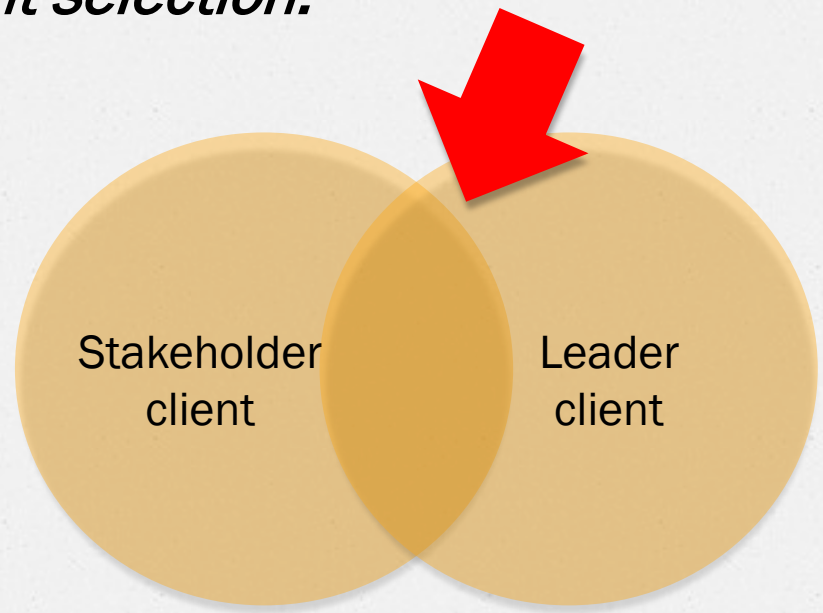
- Review list to ensure all relevant target client variables have influenced priority of lists

Step Three

- Review relevant stakeholder and leader client variables that could impact treatment selection

What to Consider

- *It is important to review relevant stakeholder and leader client variables that could impact treatment selection.*



“Will implementation of any of the treatments improve the family quality of life?”

Stakeholder Client Variables

First review relevant <u>stakeholder</u> client variables

___ Family Quality of Life

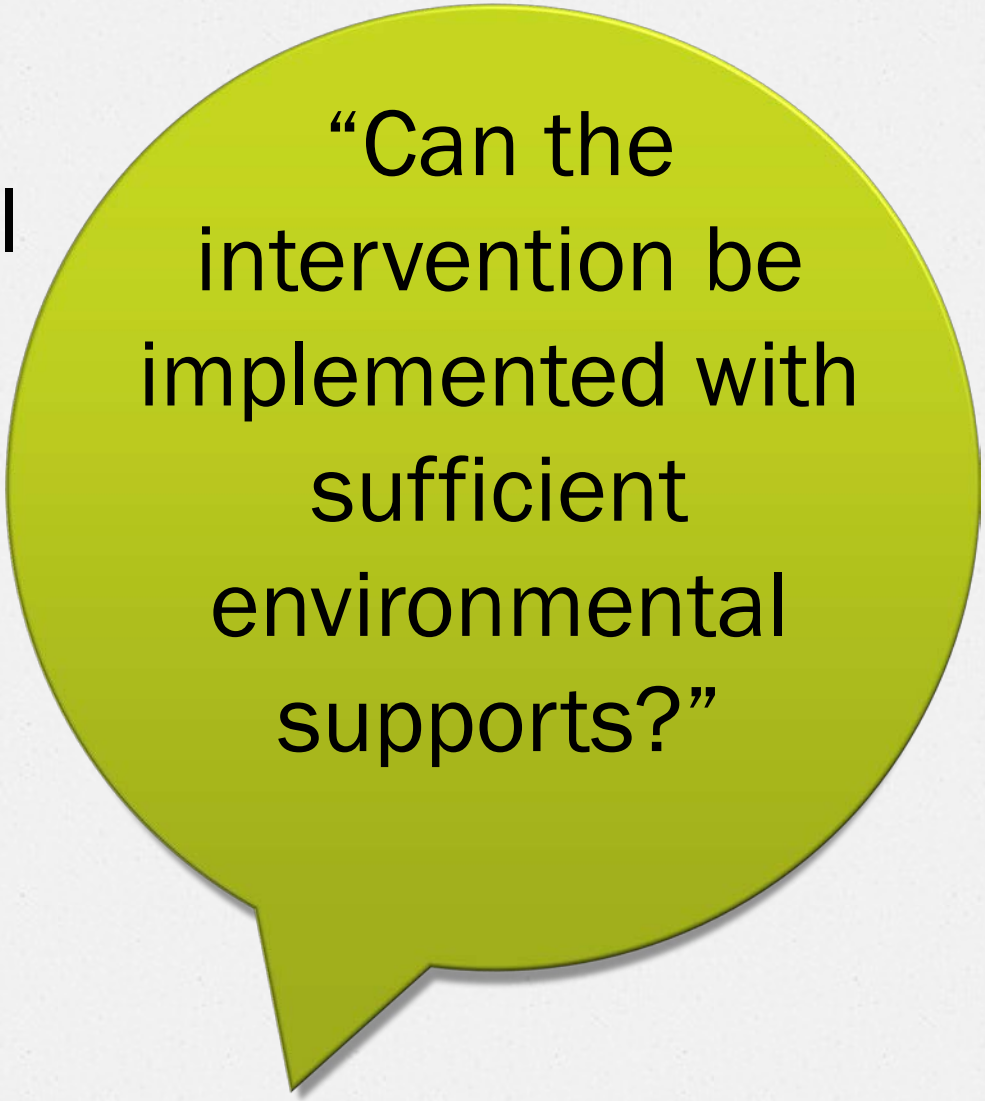
___ Feasibility

___ Sustainability

Feasibility for Stakeholder Clients
Resource Constraint
Environmental Supports
Treatment Fidelity
Treatment Acceptability

Resource Constraints

Environmental Supports



What are environmental supports?

- Variables that *enhance* or *undermine* the capacity to implement an intervention in real world settings, with the exception of costs

Environmental Supports

- Family Engagement
- Match with Cultural Norms
- Stakeholder Attitudes
- Appropriate Training for Stakeholder Clients
- Flexibility of Training
- Characteristics of Staff Providing Treatment
- Realistic Appraisal of Barriers
- Experience

Sustainability

Can you implement the treatment accurately for the entire period necessary to build a skill or reduce a behavior?

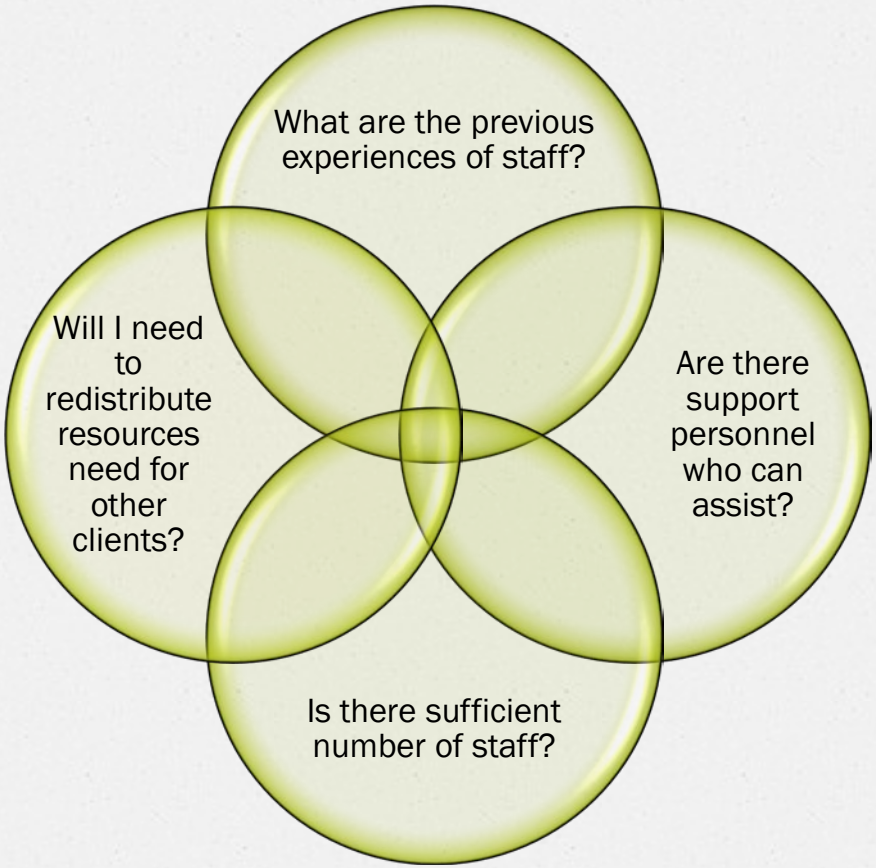
Let's be honest…If you can't keep the treatment going, your intervention to decrease problem behavior is actually the most powerful form of reinforcement!

Leader Client Variables

Next, review relevant <u>leader</u> client variables that could impact treatment selection.

- Feasibility
- Sustainability

Consider the following…



“Can the intervention be implemented with treatment fidelity?”

(with or without additional training)

Leader stakeholder clients should consider

Does treatment have a positive impact on the organization?

Does treatment require a lower response effort for stakeholder/ leader clients?

Does treatment match cultural norms of the organization?

Is treatment associated with positive “attitudes?”

Can treatment be adapted without sacrificing target client progress?

What to consider for leader stakeholder clients

- Expected Value
- Staff Experience
- Treatment Complexity
- Organizational Impact
- Secure New Resources
- New Collaborative Partnerships
- Leader Response Effort
- Staffing Requirements

Step Four

- Identify short- and long-term ***treatment*** goals

“Is there a treatment, or combination of treatments that can answer the practical question that started this process?”

“If more than one treatment is selected, should they be introduced sequentially or simultaneously?”

Implementing two treatment simultaneously may reduce treatment integrity*.

Treatment Goals

Short-term

- What treatment that could be implemented immediately could make things better (even if not perfect)?

Long-Term

- What treatment do we need in the long run to produce the improvements that are necessary?

Implementation Plan Checklist

- Describe the treatment
- Each step implementation plan checklist should contain:
  - Date it was proposed
  - Key people responsible for it
  - Coping plan
- What materials/resources are needed?
- What are the training needs?
- What kinds of data will be collected?

Then…

- Establish which single subject research design to use to evaluate your outcomes.

You need staff who are qualified to quickly evaluate if a treatment is working or not!

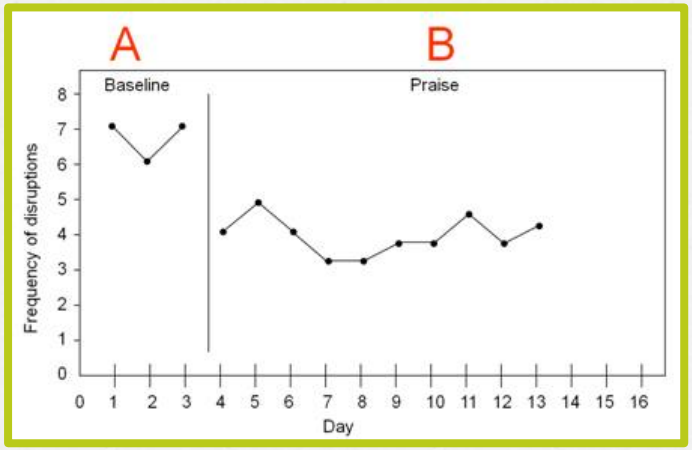
Implement and Review Treatment!

Step five
Implementing the Treatment

- Identify unanticipated resource constraints
- Identify unanticipated limitations to environmental supports

Analyze Treatment Effectiveness

- Review target client progress
- Review target client preference/tolerance
- Review stakeholder/leader satisfaction
- *Schedule times for review*



Step 6
Determining next steps

- Data are critical
- But data are useless without analysis
- Analysis is more complex that just “improvement” or “no improvement”

Should the treatment be retained?

- Yes
  - The treatment is working!
  - The target client is happy.
  - The treatment can be sustained until improvement has reached criterion.
- No
  - It isn't working
  - The client is miserable
  - The stakeholder clients can't sustain treatment
  - The environment can't support the intervention any longer

If you retain the treatment…

- Make a plan for fading the treatment
- Treatments should not be required “forever” but may need to be sustained for a long period of time.

Does the treatment need to be adapted?

- Yes
  - It's working but there are problems with the client, stakeholder clients, or context
- No
  - If adaptation would mean the procedure no longer resembled the treatment that has evidence
  - If adapting means progress is lost

If you adapt the treatment…

- Pick the smallest change needed to produce favorable outcome.
- Make sure it does not violate principles on which treatment is based
- Quickly re-evaluate outcomes

Does the treatment need to be rejected?

- Return to step 1

Evidence-Based Practice Guide	
ASK THE PRACTICAL QUESTION THAT IS RELEVANT IN THE CURRENT CASE **ARE THERE OTHER PRACTICAL QUESTIONS THAT SHOULD BE ASKED?**	
Steps	**Weighing and Integrating Information**

1. Identify best source(s) of evidence.
 	
Evidence:
 	
— Systematic Reviews & Meta-Analysis
— Narrative Review (consensus or critical)
— Practice Guideline
— Principles
— Client History:
  — Confounding Explanations
  — Treatment Fidelity
  — Different Environmental Conditions
— Current client data
  — Functional Behavior Assessment
  — Other Relevant Data
— Notes (use this space to describe how these data are being weighed)
	A. Is there evidence from a credible systematic review or meta-analysis that answers the practical question?
	i. If yes, list all effective treatments.
	ii. If no, is there evidence from consensus reviews, critical reviews, or practice guidelines?
	B. Are there treatments that do not seem consistent with scientific principles of behavior?
	i. If yes, consider giving these options a lower priority. Do not eliminate them from consideration at this point.
	ii. If no, retain all options.
	C. Is there credible evidence from the client's history that shows one of the remaining treatments will not work?
	i. If yes, confirm treatment fidelity data showed the intervention was implemented accurately
	i. If no, retain all options.
	D. Are there data that have been (or should be) collected to help identify the most effective treatment?
	i. If yes, identify remaining treatments that best match current data and prioritize

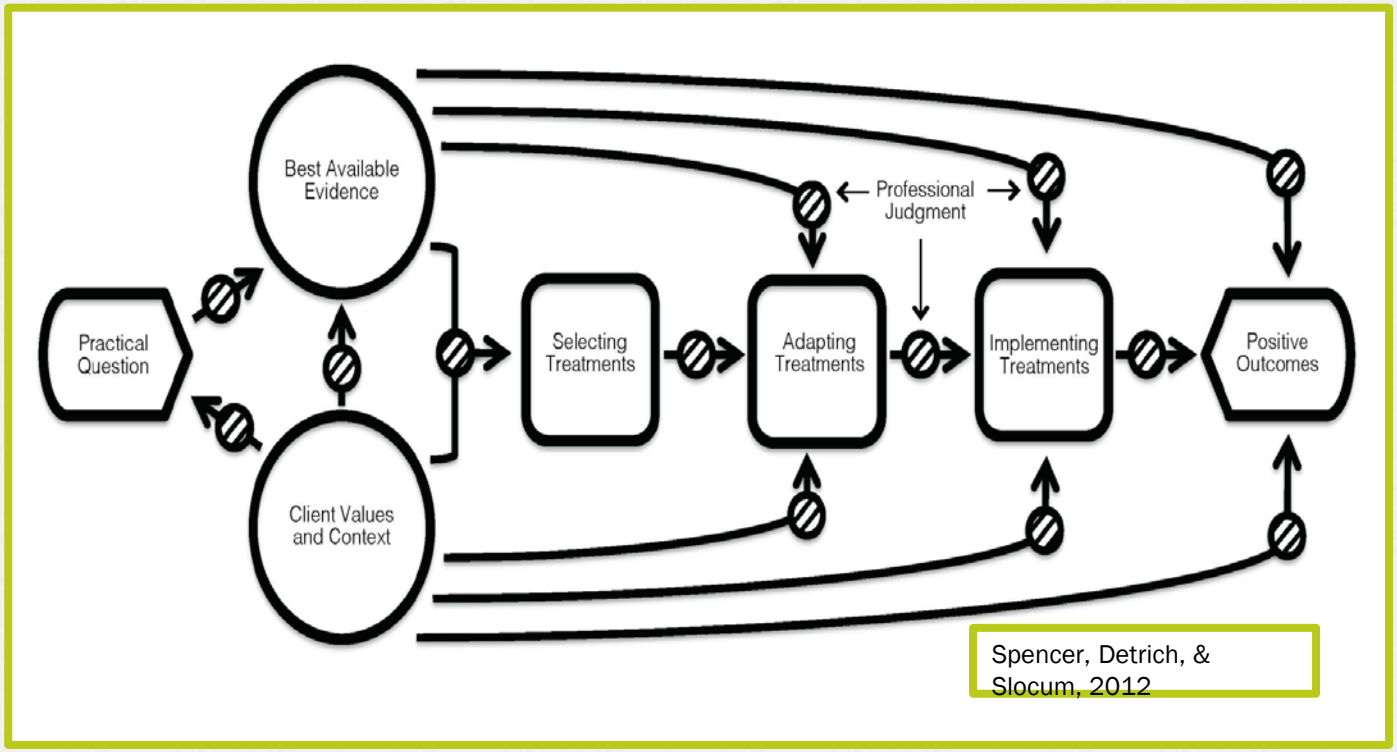
Does the treatment need to be rejected?

- Return to step 1 – you already have your list. Re-examine it with your new evidence in hand…

"Best"	Alternative
~~Best 1~~	Alternative 1
Best 2	Alternative 2
Best 3	Alternative 3
Best 4	Alternative 4
Best 5…	Alternative 5…

Does the treatment need to be rejected?

- Return to step 1



Spencer, Detrich, & Slocum, 2012

Questions?

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