

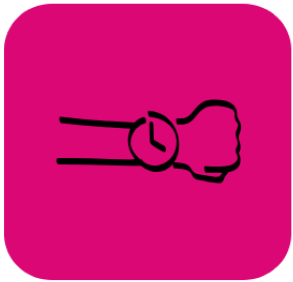
# DATA COLLECTION & EVALUATION DESIGN

UNM Evaluation Lab Summer Institute 2019

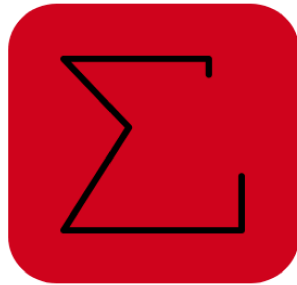
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Mission Time



Embedding  
Evaluation



Data  
Collection



Measuring  
What Matters



Participatory  
Evaluation

# Data collection & evaluation design: Learning objectives

- Brainstorm **what** information you need to answer each evaluation question
- Understand the difference between **qualitative and quantitative data** and the value of each
- Identify **who** has the best information to answer each evaluation question
- Choose the **most effective way to collect** this information
- Decide which **evaluation design** makes sense for your organization

# What

# What information do you need to answer evaluation question?

- Is answer yes/no, or meaningful categories, or a score on an assessment or rubric? (yes or no, to what degree? how much?)
  - This is **quantitative** data
  - You want to collect from everyone (or from a representative sample)
  - Relatively easy to analyze
  - Rarely captures complexity

# What information do you need to answer evaluation question?

- Does the answer require an explanation (why?), process (how?) or experience (what)? Do you need examples and stories?
  - This is *qualitative* data
  - You want to collect from different "subject positions"
  - Time consuming to analyze
  - Provides depth

# You need *both* quantitative and qualitative

- Great quantitative outcomes are more believable when we understand the how and why that qualitative data provides
- Great qualitative outcomes are more believable when the quantitative data supports them

But start with one!

What is the ideal information for answering each evaluation question?



# What information do you need to answer each evaluation question?

Evaluation question	What information do you need to answer the question?
Are parents gaining new skills and knowledge?	Assessment of skills
Are parents using new skills in an effective way?	Parent's behavior with child
Is there an improved child-parent bond?	Parent's behavior with child, and child's reaction to parent

# Who

# Who can answer your evaluation questions?

Program participants

Staff

Board members

Partners

Funders

Other organizations

Community members

# Who has this info?

Evaluation question	What information do you need to answer the question?	Who has this info?
<i>Are parents gaining new skills and knowledge?</i>	<i>Assessment of skills</i>	<i>Parents</i>
<i>Are parents using new skills in an effective way?</i>	<i>Parent's behavior with child</i>	<i>Parents, staff</i>
<i>Is there an improved child-parent bond?</i>	<i>Parent's behavior with child, child's reaction to parent.</i>	<i>Parents, staff, pre-K teachers</i>

# How

# How to collect data

- Administrative records
- Clinical assessments, tests already being used
- Elicit letters and drawings from participants
- Surveys
- Interviews & focus groups
- File/chart reviews
- In-depth case studies

# Compared to What?

Key question for evaluation design

# One shot – no comparison



ILLUSTRATION 6.1 One-Shot Design

Source: Russ-Eft and Preskill, *Evaluation in Organizations*

Posttest of what you know, your attitudes or situation at one point in time.



# One shot – no comparison, continued

## Good for

- establishing baseline
- process evaluations
- learning about participants

## Not good for

- outcomes evaluation

For outcome evaluation you always need a comparison

Unfortunately, your administrative data is often one-shot

# Retrospective – individual compares pre and post after the fact



ILLUSTRATION 6.2 Retrospective Pretest Design

Source: Russ-Eft and Preskill, *Evaluation in Organizations*

## UNM Evaluation Lab Assessment of Evaluation Competencies

Utilizing the following scale, please select the rating that best fits your level of competence **Before Fellowship** and **Now** for each item listed.

- 0 = I don't know what that is
- 1 = Do not feel comfortable doing
- 2 = Can do with a lot of guidance
- 3 = Can do with light supervision
- 4 = Can do on my own
- 5 = Can teach someone else to do it

Before Fellowship	Competency	Now
Quantitative data collection, management and analysis		
0 1 2 3 4 5	1. Finding standardized scales	0 1 2 3 4 5
0 1 2 3 4 5	2. Protocol development	0 1 2 3 4 5
0 1 2 3 4 5	3. Writing summaries of quantitative data findings	0 1 2 3 4 5
0 1 2 3 4 5	4. Database development	0 1 2 3 4 5
0 1 2 3 4 5	5. Data entry	0 1 2 3 4 5

# Retrospective – qualitative

- People's stories of how the program changed them can be very powerful
- And if universal or randomly selected, the stories are credible (and not just anecdotal)
- You don't only have to have your evaluation act together by the end of the program (not at the beginning)

# Retrospective – caution

There is some evidence that people lower their retrospective assessment of the “pre” so that they can report an improvement

# Pre-Post – comparison before and after program

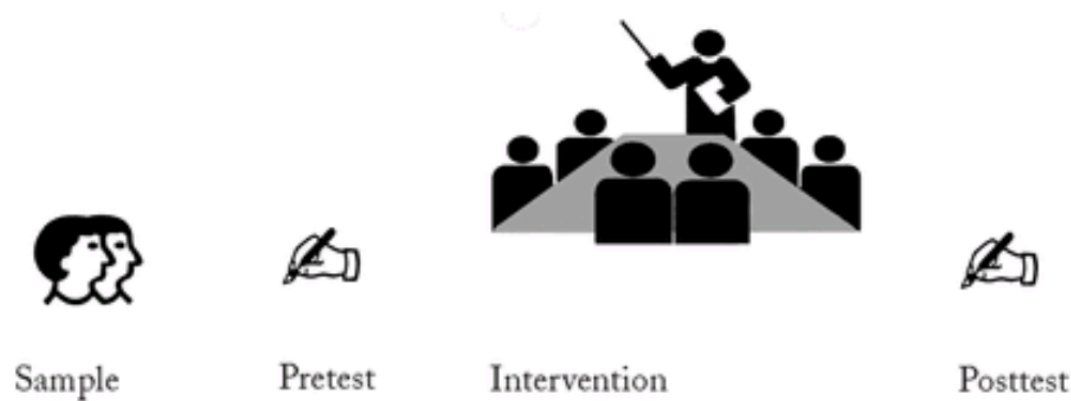


ILLUSTRATION 6.3 One-Group Pretest-Posttest Design

Source: Russ-Eft and Preskill, *Evaluation in Organizations*

# Pre-Post

FANTASTIC for tracking participants, especially pre and post assessments and material conditions

# Pre-Post - caution

Without a control group, you don't know that program caused change. .

- Your participants come to you at their lowest point, maybe they would have done better over time even without your program
- Good idea to collect additional data about how participants rate the program as a factor in their improved condition – here is where qualitative data complements quantitative data



# Pre-Post

Change in attitudes or outlook

- [Child Hope survey pre and post](#)

Change in knowledge

- [Enlace Relaciones Saludables test](#) (but think about whether knowledge translates to behavior)
- Supported by qualitative data – letter, focus group

Change in family functioning

- [PB&J NCFAS](#), assessed by staff (but think about “grade inflation”)
- [PFS](#) (but think about less self-knowledge in the beginning)
- [Enlace PSI](#)

Change in participation in government support programs




- Participation Medicaid, SNAP, TANF



POST

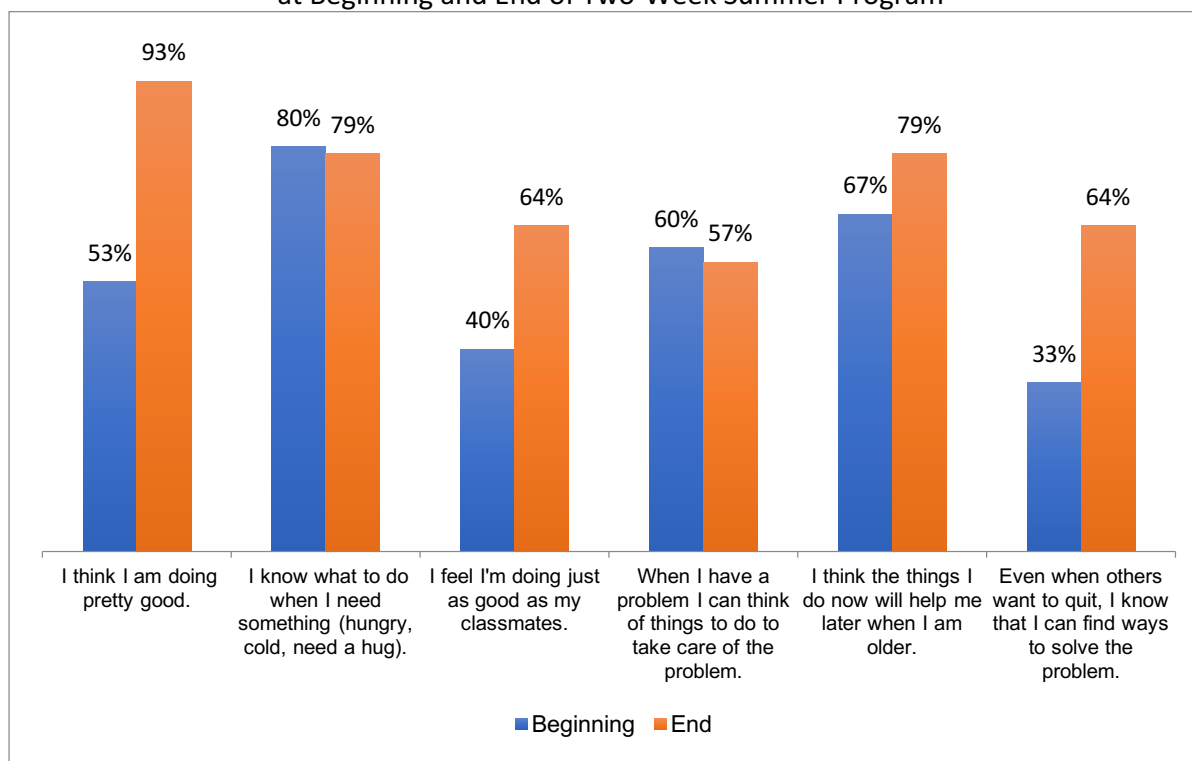
### Questions About Your Goals

Directions: The six sentences below describe how children think about themselves and how they do things in general. Read each sentence carefully. For each sentence, please think about how you are in most situations. Place a check (✓) inside the box that describes YOU the best.

			
1. I think I'm doing pretty good.	✓		
2. I know what to do when I need something (hungry, cold, need a hug...)			✓
3. I feel I'm doing just as good as my classmates.	✓		
4. When I have a problem I can think of things to do to take care of the problem.		✓	
5. I think the things I do now will help me later when I'm older.	✓		
6. Even when others want to quit, I know that I can find ways to solve the problem.			✓

3/25/2013

Figure 5. Percent of Children Who Agreed with Each Statement at Beginning and End of Two-Week Summer Program

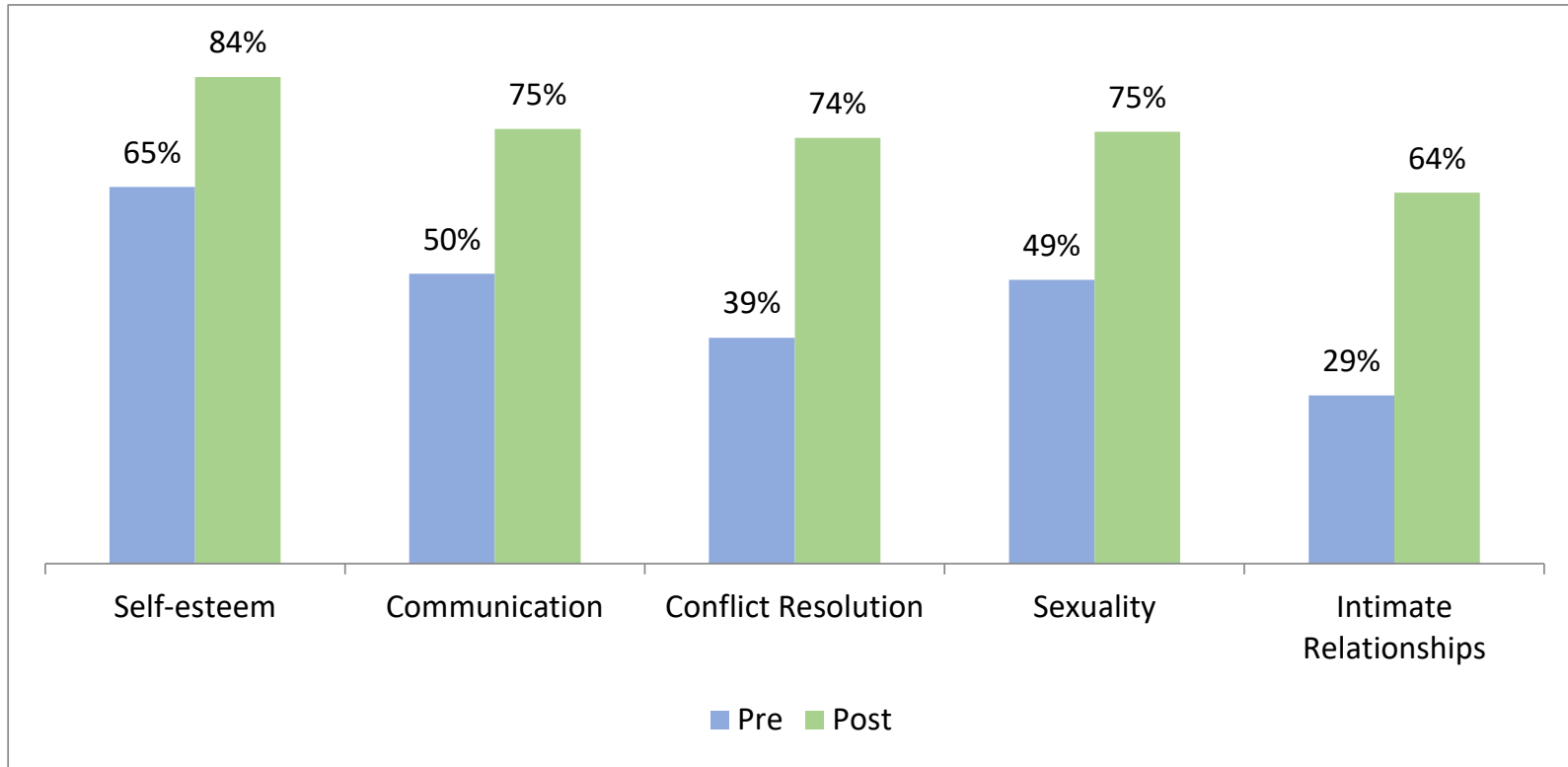


Note: 15 children completed the Beginning survey and 14 completed the End survey.

Source: Binder, Melissa. 2014. Evaluation of the Taos Health Systems Peñasco Community Health Kids FIRST Initiative.



**Figure 1. Percent Scoring Correctly on Pre-and Post Questions, by Theme**



Note: Data collected through pre- and post- tests for 139 Relaciones Saludables students for nine semesters from year to year.

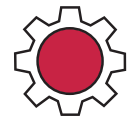
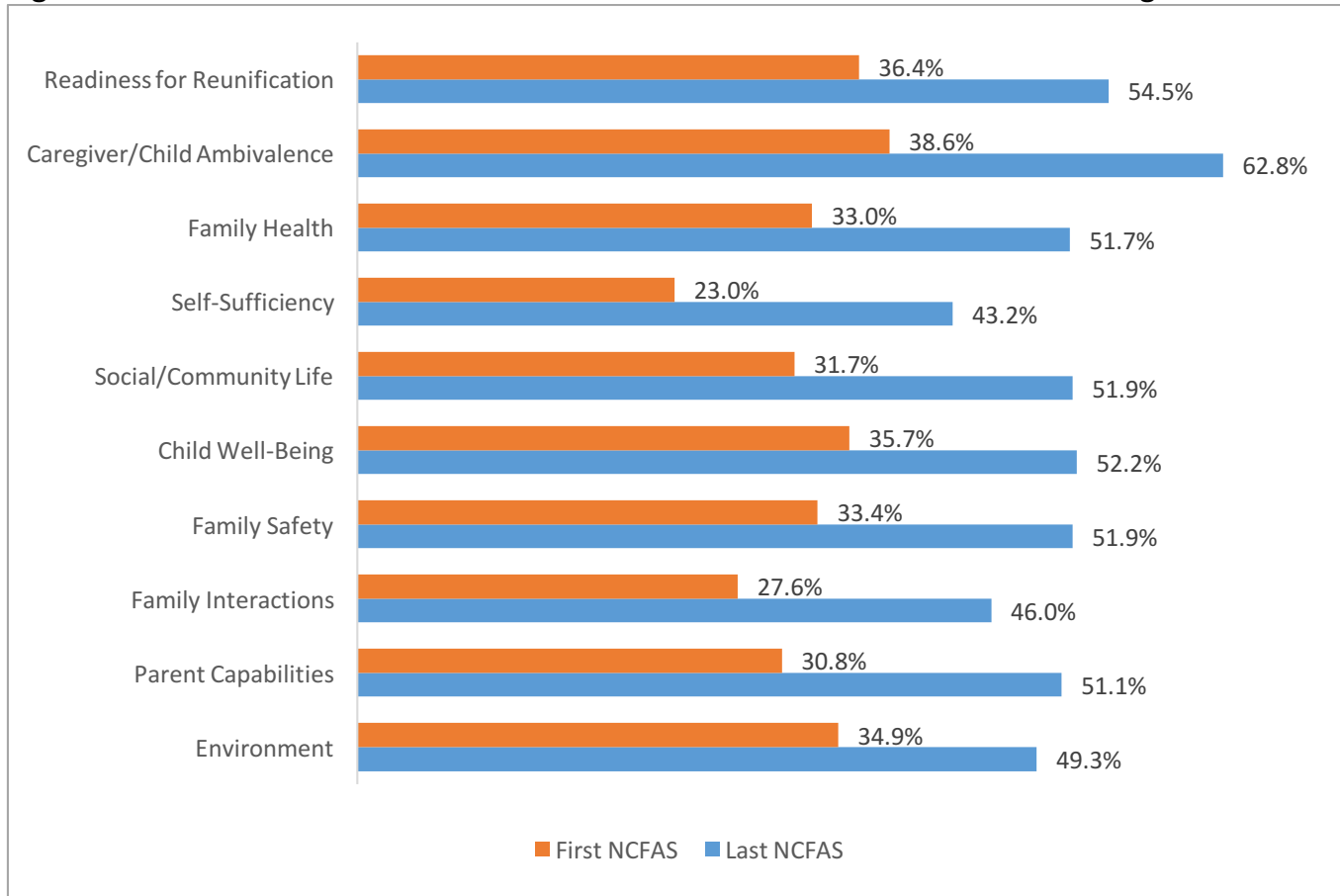


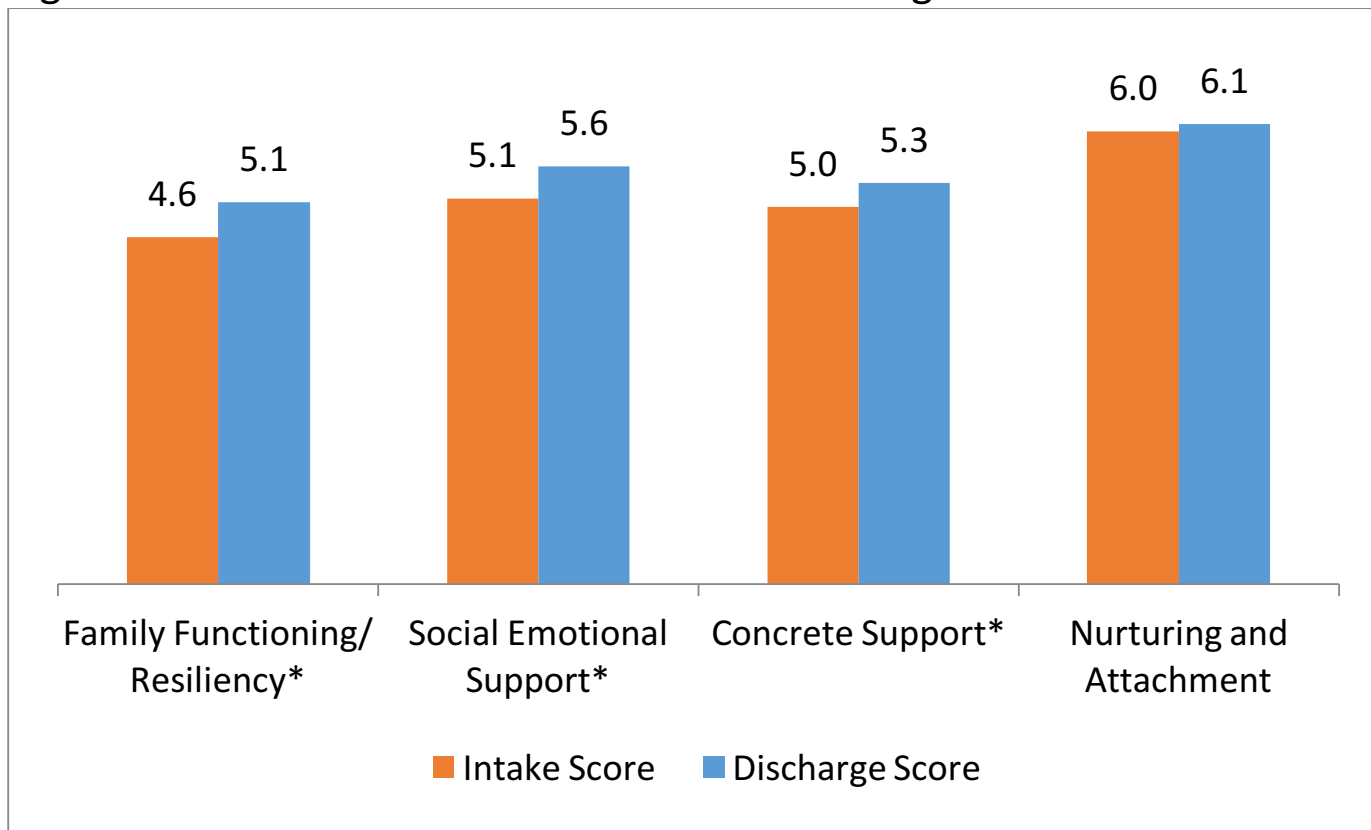
Figure 3. Families rated at baseline or better on the NCFAS at intake and discharge



Note: Data represent all clients with matched NCFAS assessments between January 2010 and January 2016, about 900 clients in total.



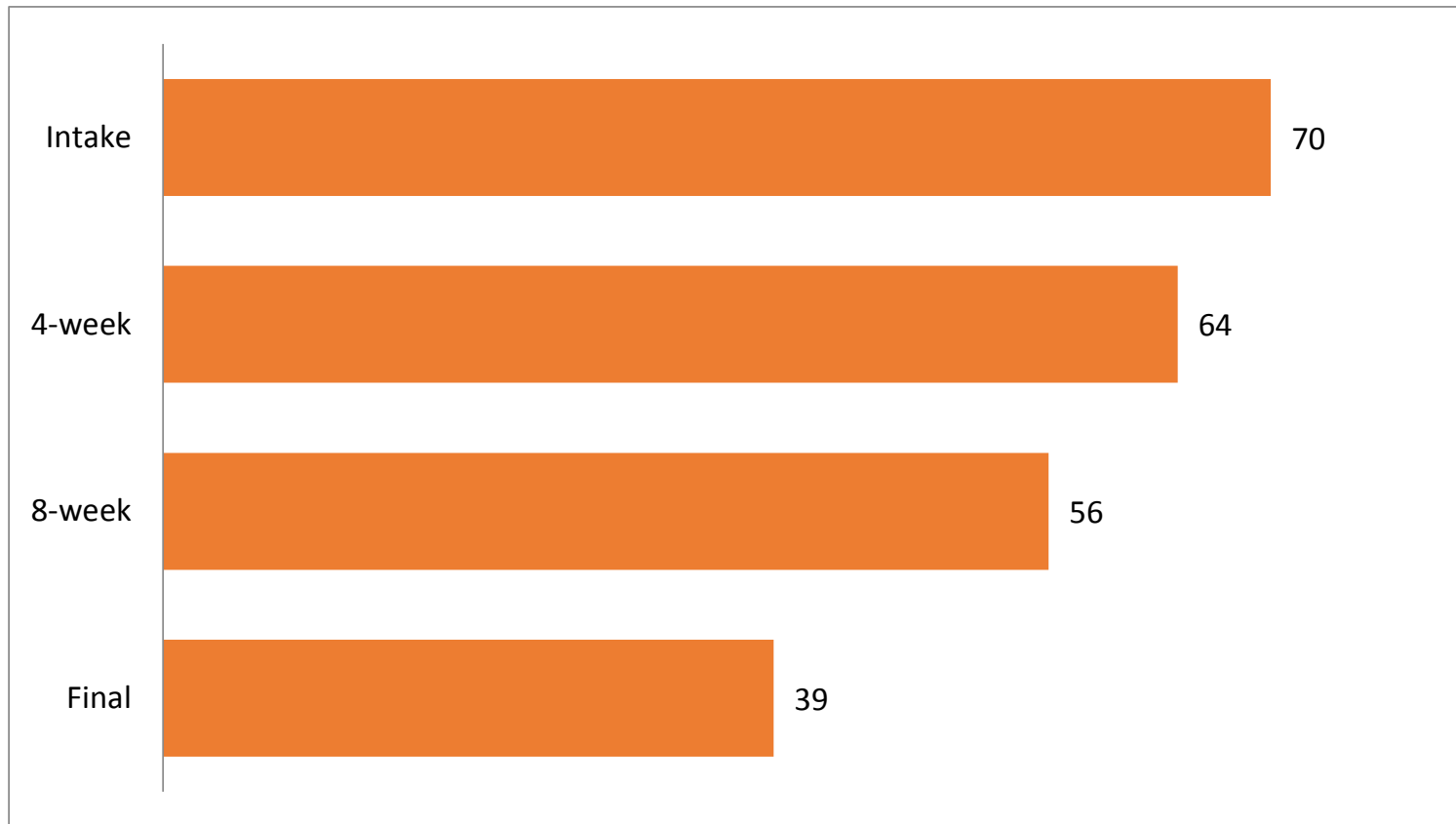
Figure 6. Protective factors at intake and discharge



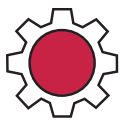
\* Differences are significant at a 5% level using a two-tailed t-test.



**Figure 3. Parental Stress Index Surveys Show Parents' Stress Level Percentiles Declined Over Time in the Family Program**



Note: Data represent 120 survey responses for 30 unique participants. Data are from mid-2010's to 2017.



# Control group one measure

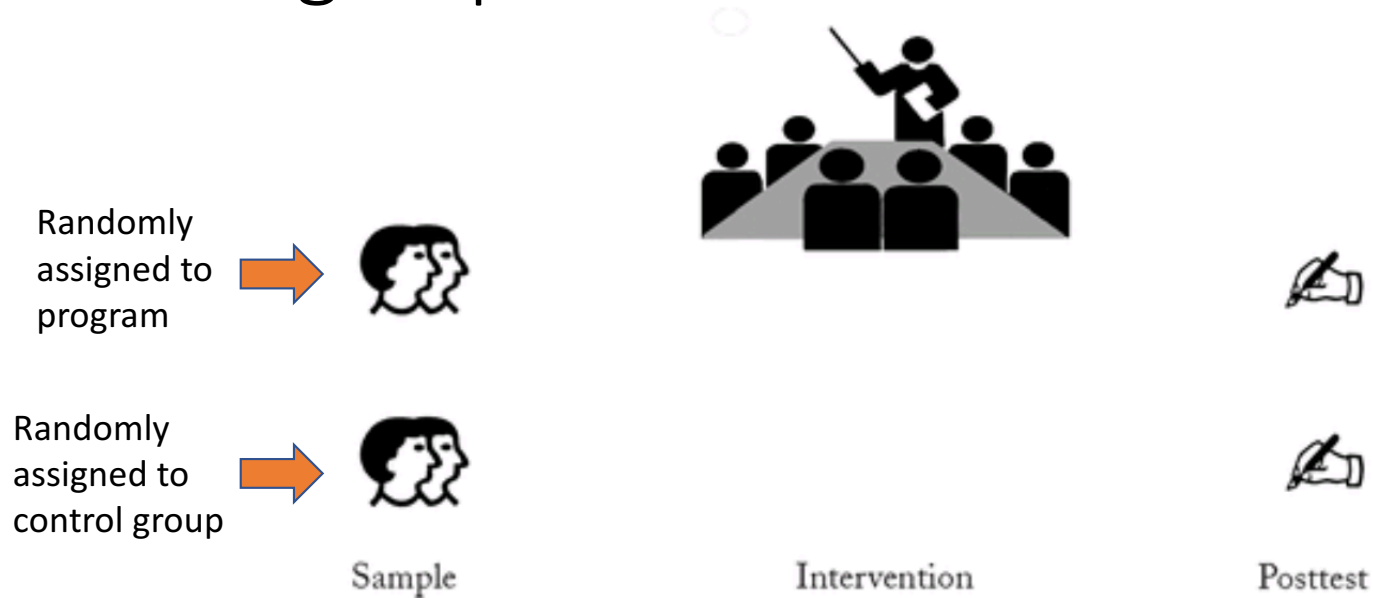


ILLUSTRATION 6.4. Posttest-Only Control Group Design

Source: Russ-Eft and Preskill, *Evaluation in Organizations*



# Control group one measure

Be open to possibility of identifying a control group

- Even if not random assignment, is there a group you can't serve because of geography or some other characteristic not related to need for program?

Could work for people on waitlist

You need lots of people to make this work

# Implementation challenges

If you want to make claims about outcomes, data need to be *representative*

- Everyone in your program
- OR
- A random sample of those in your program (a clinic could collect customer satisfaction data from all visitors during one week every quarter)

Beware of low response rates

- You want response rates of 80% or higher
- Those not responding are probably your less enthusiastic participants

# Depth

Understanding depth of experience is harder and much more time consuming

- How do participants experience the program?
- How did the program change their life story (if it did)?

Here you are looking for similarities and differences and ideally you keep collecting until you have all the stories

- In practice there is limited time available, and you need to trade breadth for depth
- In-depth experiences are incredibly helpful for understanding your processes
- Just be aware that they may not be representative

Understand that those who volunteer for a focus group will typically be your most enthusiastic participants

- Try to find ways to get your less satisfied participants there as well

# Making it happen

- How do you get people to respond to your survey?
- How do you get people to your focus group?
- How do you get staff to complete (another) assessment?

# Staff assessments (like NCFAS)

Beware rooting for the client

Create a culture that values the true outcome over the desired outcome

- You don't want staff feeling pressure to overstate outcomes to save face

# Self-assessments

Pre-post self-assessment changes tend to be more muted than pre-post staff assessments because “pre” tends to be relatively high

- People want to present themselves in a positive light
- And they don't know what they don't know
- You could do pre and retrospective (Jules Salinas, Enlace)

# Brainstorming data collection

WORKBOOK: Learning Community #4



Data Collection Part I			Indicate whether pre-post or retrospective	
Evaluation question	What information do you need to answer the question?	Who has this info?	Can you get this info from a tool you already have? Which?	Other ways to get info?
<b>Are parents gaining new skills and knowledge?</b>	<b>Assessment of skills</b>	<b>Parents</b>		
<b>Are parents using new skills in an effective way?</b>	<b>Parent's behavior with child</b>	<b>Parents, staff</b>		
<b>Is there an improved child-parent bond?</b>	<b>Parent's behavior with child, child's reaction to parent.</b>	<b>Parents, staff, teachers</b>		

Data Collection Part I			Indicate whether pre-post or retrospective	
Evaluation question	What information do you need to answer the question?	Who has this info?	Can you get this info from a tool you already have? Which?	Other ways to get info?
Are parents gaining new skills and knowledge?	Assessment of skills	Parents	<b>Yes: Parenting inventory: AAPI</b> <b>Pre-Post</b>	<b>Not needed</b>
Are parents using new skills in an effective way?	Parent's behavior with child	Parents, staff	<b>Possibly: Protective Factors Survey</b> <b>Pre-Post</b>	<b>Retrospective question in survey, focus group or interview—ask for examples.</b> <b>Before and after drawing.</b> <b>Staff observations.</b>
Is there an improved child-parent bond?	Parent's behavior with child, child's reaction to parent.	Parents, staff, teachers	<b>Possibly: Protective Factors Survey</b> <b>Pre-Post</b>	<b>Same as above.</b> <b>Collect family drawing from child at start and end of program.</b> <b>Teacher observation.</b>

Data Collection Part II: Implementation

Data Collection Tool	Who	When & How
<b>AAPI &amp; Protective Factors Survey</b>	<b>Case manager</b>	<b>Enrollment and discharge meeting, enter directly into data base</b>
<b>Focus groups (include before and after drawing)</b>		
<b>Staff observations</b>		
<b>Child drawing</b>		
<b>Teacher observation</b>		

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<b>Focus groups (include before and after drawing)</b>	<b>Evaluation coordinator</b>	<b>Week 15 of 16-week program. Provide \$20 gift card?</b>
<b>Staff observations</b>		
<b>Child drawing</b>		
<b>Teacher observation</b>		

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<b>Staff observations</b>	<b>Home visitors</b>	<b>Add to ticket: Comment on parent-child interaction, provide an example</b>
<b>Child drawing</b>		
<b>Teacher observation</b>		

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<b>Child drawing</b>	<b>Children's group</b>	<b>Week 1 or 2 and again Week 15 or 16</b>
<b>Teacher observation</b>		

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<b>Child drawing</b>	<b>Children's group</b>	<b>Week 1 or 2 and again Week 15 or 16</b>
<b>Teacher observation</b>	<b>Kindergarten teacher</b>	<b>Find or develop tool for child attachment. But first, establish relationship with teachers. . .</b>

But first. . .

more about surveys and interviews. . .