Evaluation 201

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Clea McNeely, DrPH

Deputy Director

Center for Adolescent Health

Johns Hopkins Bloomberg School of Public Health

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Center for Adolescent Health

Mission: To work in partnership with youth and people who work with youth to help urban adolescents develop healthy adult lifestyles

A Prevention Research Center funded by the CDC

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Outline for This Morning

- Warm-up Exercise
- The dominant evaluation paradigm, and why it is a trap
- Process evaluation
- Outcome evaluation

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Warm-up Exercise

- Why does your funder want you to evaluate your program (or have it evaluated)?
- What do you want from an evaluation of your program?

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Why Evaluate?

- What funders want:
  - Prove that their money is making a big difference in outcomes of their choice.
- What grantees want:
  - Show that they should be given more money to continue and expand the good work they are doing.

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The Evaluation Trap

If evaluation is conducted for these reasons *only*, the result, over time, will be to undermine both political support for funding and program quality.

Why? These motivations can lead to looking for

- wrong outcomes
- wrong effect sizes
- wrong emphasis in small program-level evaluation

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Wrong Outcomes
Example: After-School Programming

- Advocates discovered academic performance was a “saleable”rationale
- Programs sold as solutions for low achievement.
- But… research shows that link between after-school programs and academic achievement is weak.
- …Even though there is good evidence that after-school programs produce other positive outcomes.

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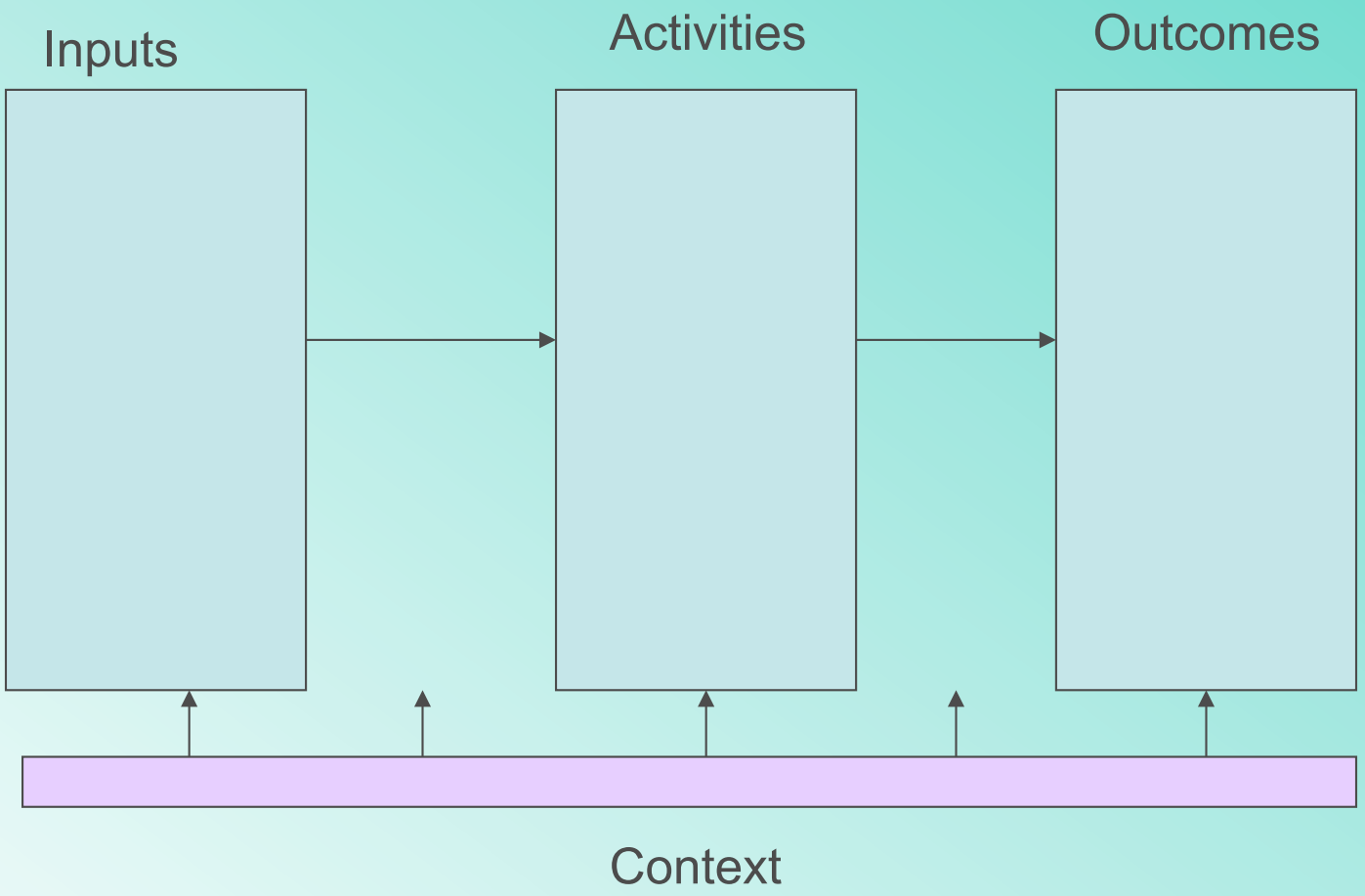
Wrong Effect Sizes
Our program is the focus of our day



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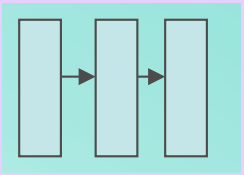
…but not the center of our client's life

Context



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Wrong emphasis in evaluation

Over-emphasis on measuring outcomes when demonstrating causality is not feasible

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Demonstrating Causal Effects: Testing the Counterfactual

What would have happened to the exact people we served in the absence of your program?

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How well do these strategies test the counterfactual?

- Collecting pretest and post-test information and seeing if outcomes change over time
- Comparing the status of your participants to those who did not participate
- Having people reflect on how the program helped them.

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How Can Small Evaluations Be Useful?

Answer questions such as:

- Is the program implemented well?
  - Why or why not?
- Is the program reaching the people it is intended to reach?
- What is participation and user satisfaction?

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Outline for This Morning

- Warm-up Exercise
- The dominant evaluation paradigm, and why it is a trap
- Process evaluation
  - Is program implemented well?
  - Is program reaching intended population?
  - What is participation and user satisfaction?
- Outcome evaluation

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Question 1: Is program implemented well?

- Need to define "well"
- Typically, evidence-based practices are the standard of reference
  - Demonstrate that your intervention is based on evidence-based practices
  - Monitor fidelity to core components of evidence-based practice

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What Is Evidence-Based Practice?

"It is the integration of the best research evidence with clinical expertise and patient values."

Institute of Medicine, 2001

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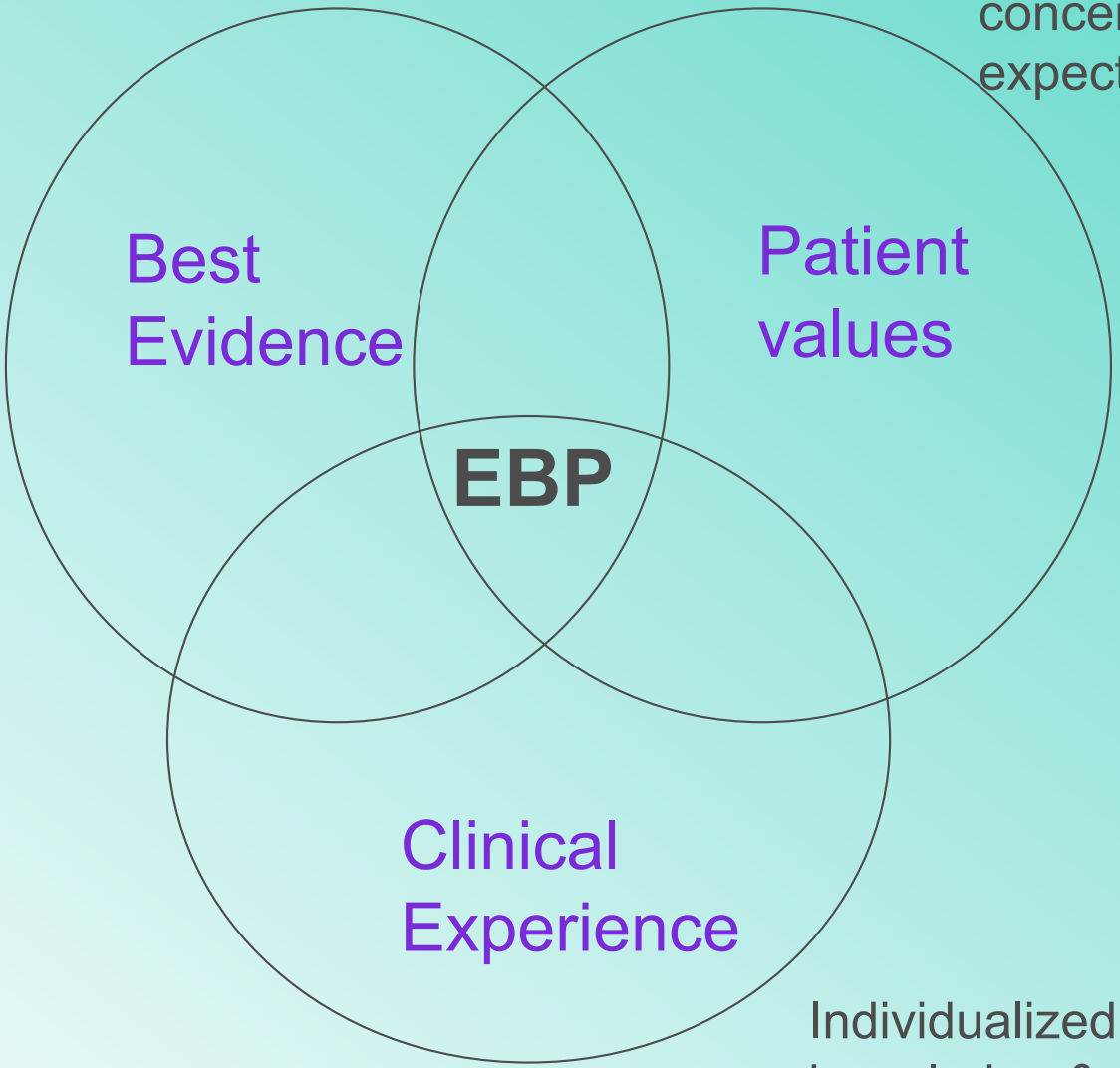
Evidence-Based Practice

Best available research on prevention, diagnosis, and treatment

Respect for patient concerns,preferences, expectations



Individualized care based on knowledge & understanding of child/family

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Source: Barbara J. Burns, Duke University

Document Rationale for Adaptation Choices

Have you selected the science-based approach with the best initial fit?

- resources
- target population
- organizational climate
- community climate
- future sustainability

(Harding, 2007)

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Document Rationale for Adaptation Choices

Did you retain core components? Why not?

- We know very little about the core components of specific programs.
- Look to what developers/replicators identify as "implementation essentials."
- Be consistent with science-based principles (e.g., psychological control by parents is damaging regardless of culture)

(Harding, 2007)

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What Is Fidelity?

Two types:

1. Fidelity to the original program
2. Fidelity to the proposed/planned program

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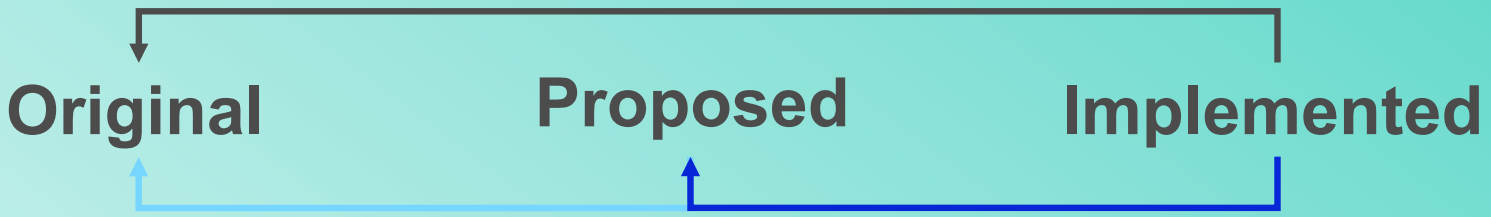
Fidelity (continued)



- With replications (or implementations of innovative programs), track fidelity to the original program
- With already adapted programs, document modifications to the original program prior to implementation, and then track adaptations relative to the modified program.

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(Harding 2007)

Comprehensive Fidelity Assessment

- Assess fidelity to original program and to proposed (adapted) program.
- Assess fidelity at intervals.
- Assess all aspects of the program (e.g., content, delivery methods, target population, setting delivery agent).
- Assess adaptations to evaluation methods (in both original and proposed program).
- Assess rationale for adaptation.

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(Harding 2007)

Toolkit for Assessing Fidelity and Adaptations (EDC, 2003)

- Website: https://learn.aero.und.edu/Upload/976/97629/FidelityAdaptationToolkitfinal.pdf
- Addresses types of adaptations
  - content, duration, delivery method, target population, setting, delivery agent, etc.
- Tracks evaluation changes
- Collects data about reasons for adaptations
- Designed to assess fidelity across programs

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Question 2. Are You Reaching the Population You Intended to Reach?

- Access is a goal, but most of you are measuring it by utilization of your services.
  - Are you reaching the ones who need it (especially parents)?
  - Are participants replacing other services with your services? If so, are your services better?

- What data sources & methods can answer this question empirically?

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Question 3.
What Are Stakeholder Perspectives?

Stakeholders:

- Advisory board members
- Parents
- Children
- Mental health providers
- Teachers and school staff

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Why Do Stakeholder Perspectives Matter?

- Affect buy-in and support for the program
- Affect fidelity to ***your*** adaptation (quality)
- Affect participation (uptake and dosage)
- Affect sustainability
- Affect data quality

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Assessing Stakeholder Perspectives

- Consider qualitative methods
  - Interviews
  - Focus-groups
- Have an external evaluator (someone who does not administer program or provide clinical care) coordinate this portion of the evaluation
- Provide small, appropriate incentives

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It's your lucky day!

Your funder does not expect you to conduct an impact evaluation.

But many of you what to show your program is improving health as well as access to services.

So we'll also talk about strategies that don't require an RCT or a whole lot of $$

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Requirements for Causal Inference

- Cause precedes effect
- Cause covaries with effect
- Alternative explanations for the causal relationship are implausible

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Principles to show alternative explanations are improbable

- Identification and study of plausible threats to internal validity
- Primacy of control by design (instead of statistical controls)
- Coherent pattern matching (predicting a complex pattern that is unlikely to be due to chance)

(Shadish, Cook & Campbell 2002)

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Primacy of Control by Design

Ways to strengthen one-group pretest-posttest designs

- Double pretest -- serves as a 'dry run' to clarify biases

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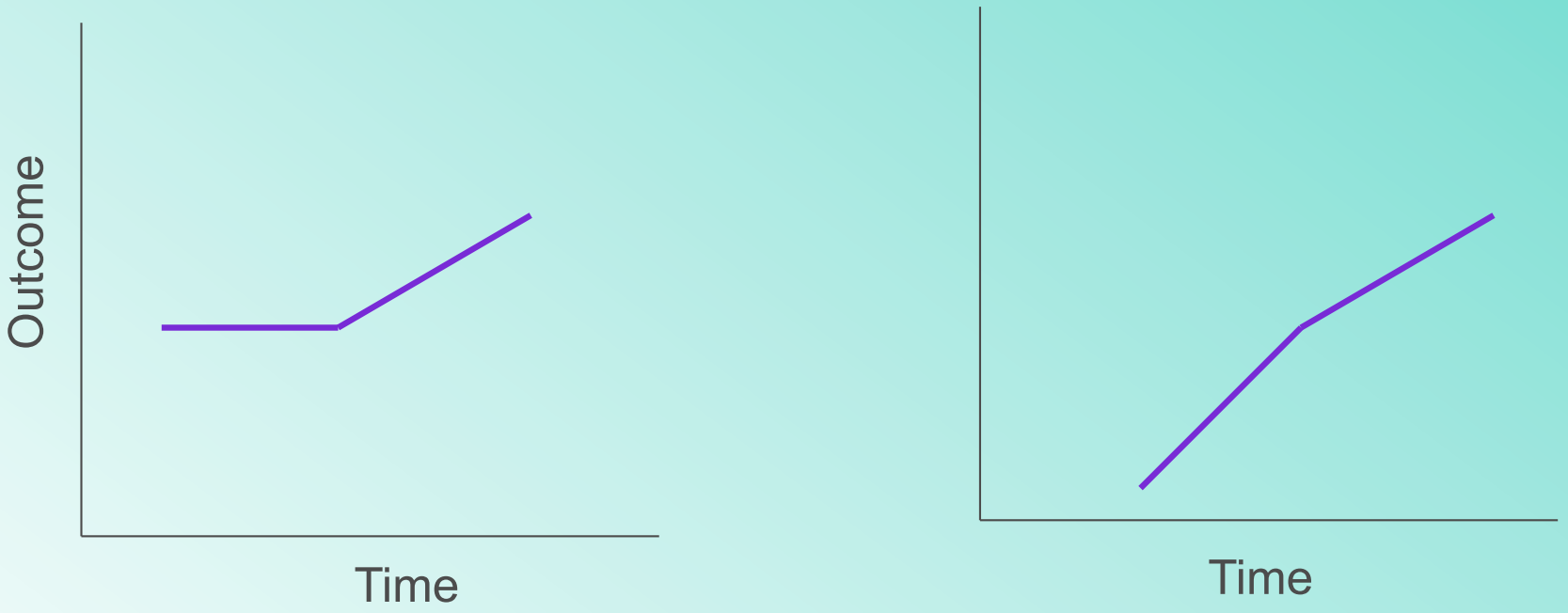
Double Pretest



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Primacy of Control by Design

- Ways to strengthen one-group pretest-posttest designs
  - Double pretest -- serves as a 'dry run' to clarify biases
  - Nonequivalent dependent variable

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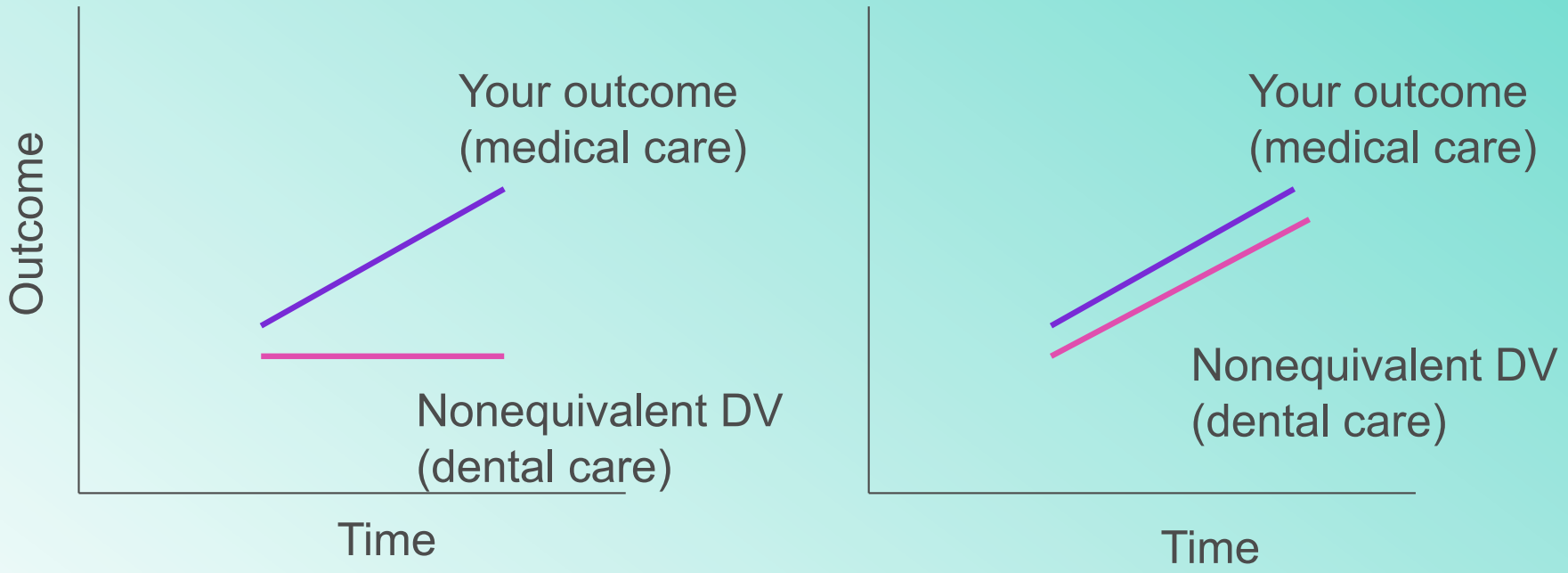
Nonequivalent Dependent Variable

Nonequivalent DV is expected to respond to salient threats to validity in same way as your outcome variable, but it is not expected to respond to intervention.



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Primacy of Control by Design

- Ways to strengthen one-group pretest-posttest designs
  - Double pretest -- serves as a 'dry run' to clarify biases
  - Nonequivalent dependent variable
  - Use multiple non-equivalent comparison groups

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Multiple Non-equivalent Comparison Groups

- Better to use multiple flawed comparison groups than one, e.g.,
  - Rejected applicants (e.g., deemed to not need intervention)
  - Accepted applicants who fail to start treatment
  - Those who start treatment but dropout

- Try to select both a group expected to outperform the tx group ***if the treatment has no effect*** and another group expected to underperform it.

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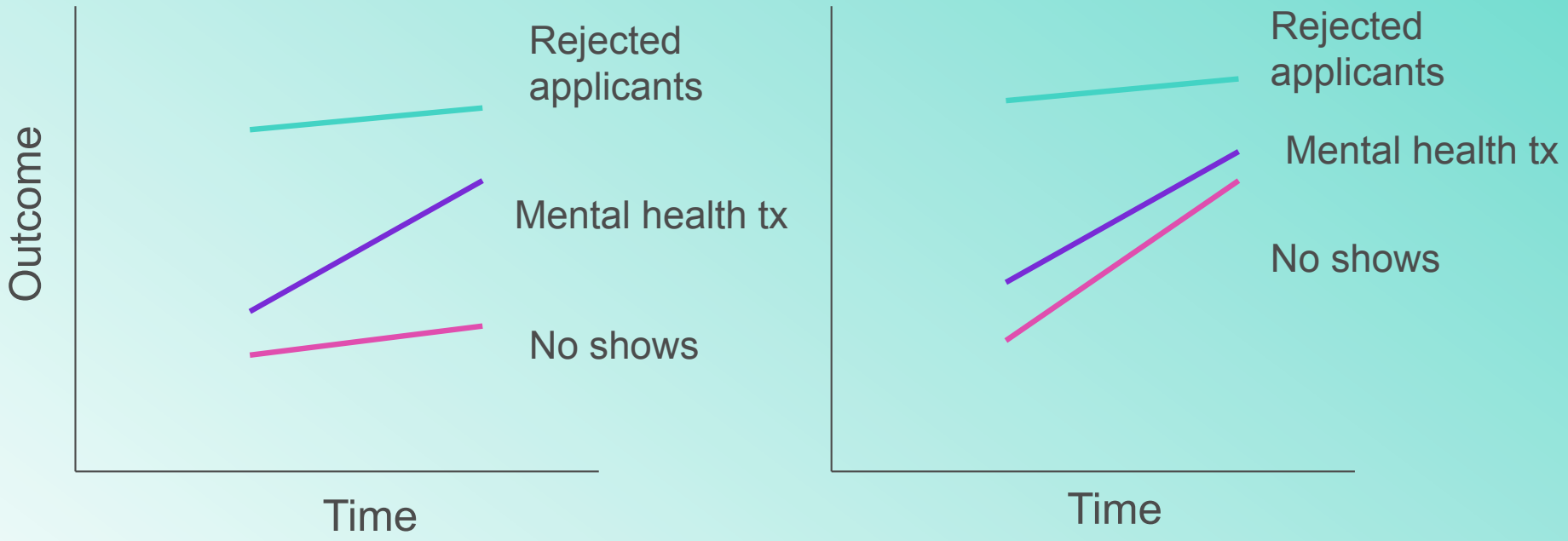
Multiple Nonequivalent Control Groups



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How to reach the Center for Adolescent Health

- http://www.jhsph.edu/adolescenthealth/index.html
- Clea McNeely: cmcneely@jhsph.edu

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References

Burns, B. (2007) Improving the Mental Health of New Hampshire's Children and Their Families. Presentation to the Program Year 2008 Kickoff and New Theme Debut. Concord, NH, October. Accessed March 11 at www.endowmentforhealth.org/_docs/110.pdf.

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