At Scale Implementation of Evidence-Based Interventions

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Overview

- History and context
- CQI and the deliberate use of research evidence
- Multi-level Linked Interventions (the cocktail deconstructed)
  - Administrative changes
  - Fiscal reform
  - Linked EBIs
  - Synergy
  - Fidelity measurement - in the moment
- Results

First - The End

- A cocktail of interventions aimed at improving child behavior and thereby increase placement stability and reduce time to permanency
- Targets three levels within the system
  - Administrative - caseworkers and supervisors
    - Time use
  - Fiscal - Basic reinvestment strategy
  - Clinical - Linked EBIs: KEEP, PTC, R3
- Linked means mutually reinforcing
- Results

Context and History - Why It Matters

- Leadership
  - Consistency
  - Willingness to use evidence
  - Capacity to generate evidence
- Structure
  - Private sector
  - Public/private boundary

Context and History (con't.)

- History of efforts to change the system and improve outcomes
  - Fiscal reform
  - Flexibility/purchasing power not enough
- Administrative reform
  - Administrative reforms are weak, hard to target, and poorly targeted
- Clinical reform
  - No thematic coherence
- Evaluations show that fiscal reform has modest effects, process changes weak, no clear clinical intent

Research Evidence, CQI, and Design

- A short history
- The evidence base has been building for some time
  - Mass and Engler (1959) – Drift while in care
  - Fanshel and Shinn (1976) – Longitudinal perspective
- The pace accelerated in the 1990s for two reasons:
  - Investment by government in computerized records which gave way to longitudinal data bases for tracking service histories
  - Investment in treatment interventions for children in foster care by the NIH
- This project leverages those two investments

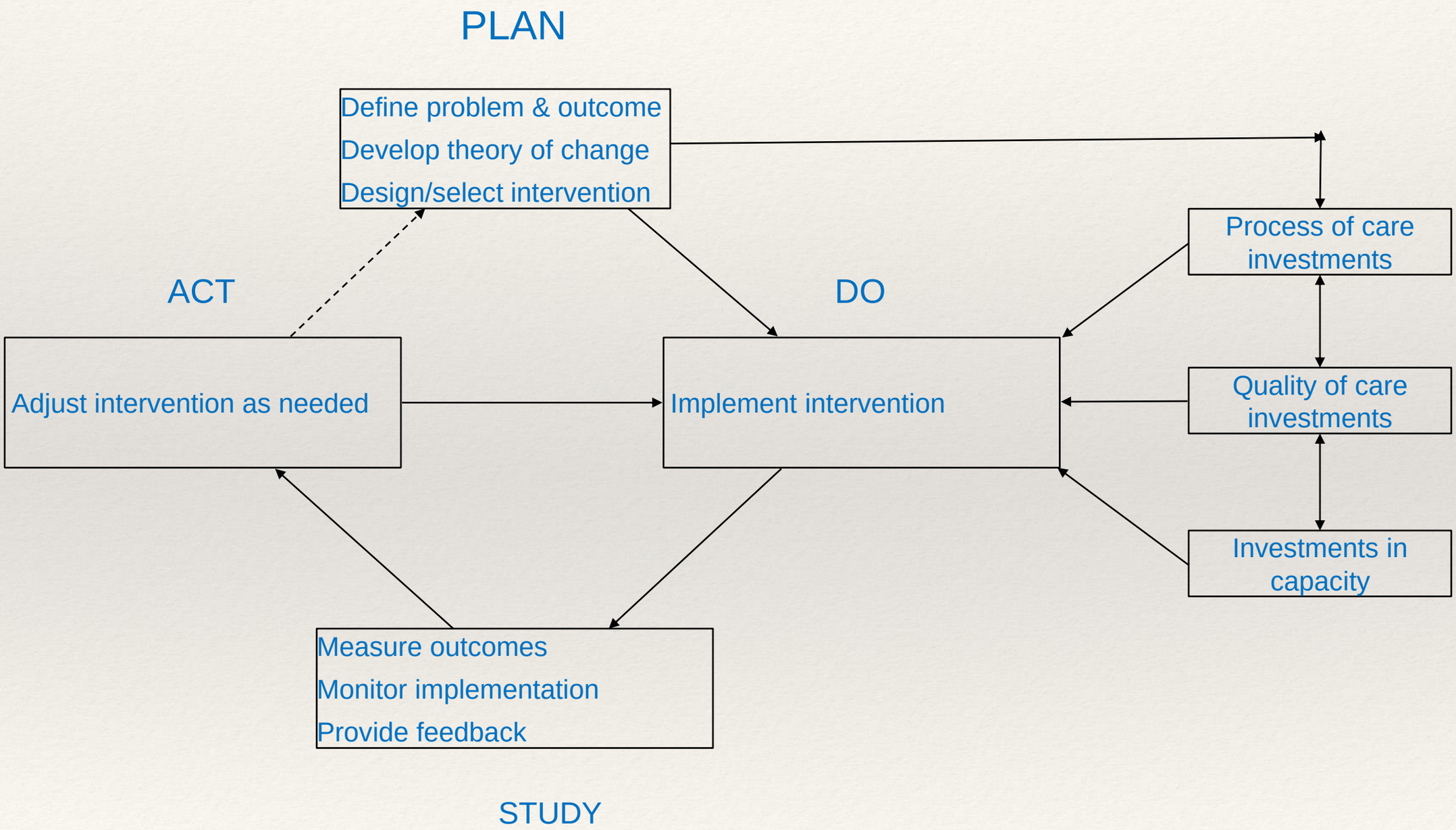
Research Evidence and Design

- What is research evidence?
- Research evidence use as a deliberate process
  - Acquire and/or generate
    - This is a passive or active but not mutually exclusive phase
    - Acquire data and evidence generated by someone else
    - Generate data and evidence ‘internally’ and purposefully
  - Process
    - Make meaning of the data, create narrative structure using the evidence
  - Apply
    - Make a decision based on the evidence - ideally inside a conscious CQI cycle

Generating Research Evidence

- Accumulation of data, evidence, and knowledge about the workings of a child welfare system
  - Evidence has to inform a multi-level view of the system
    - Administrative - effort
    - Fiscal – manage incentives
    - Clinical
      - How children experience the system
      - The content of that experience
- The project linked these knowledge bases

Continuous Quality Improvement and the Deliberate Use of Research Evidence



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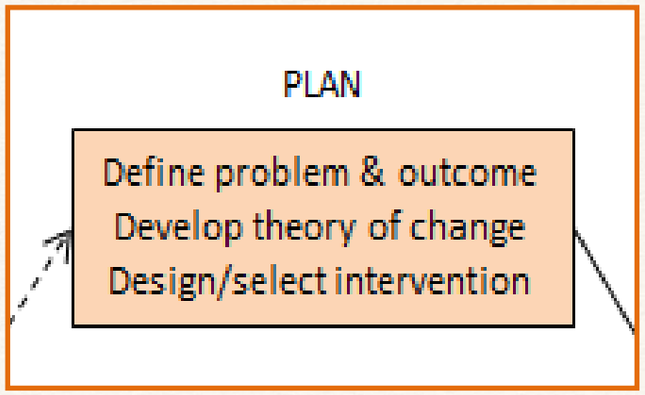


SUPPORT WITH EVIDENCE

HYPOTHESIS DEVELOPMENT/TESTING

What evidence was used to make this observation?

We observe [some outcome that we want to improve].

What is the evidence that supports this theory of change?

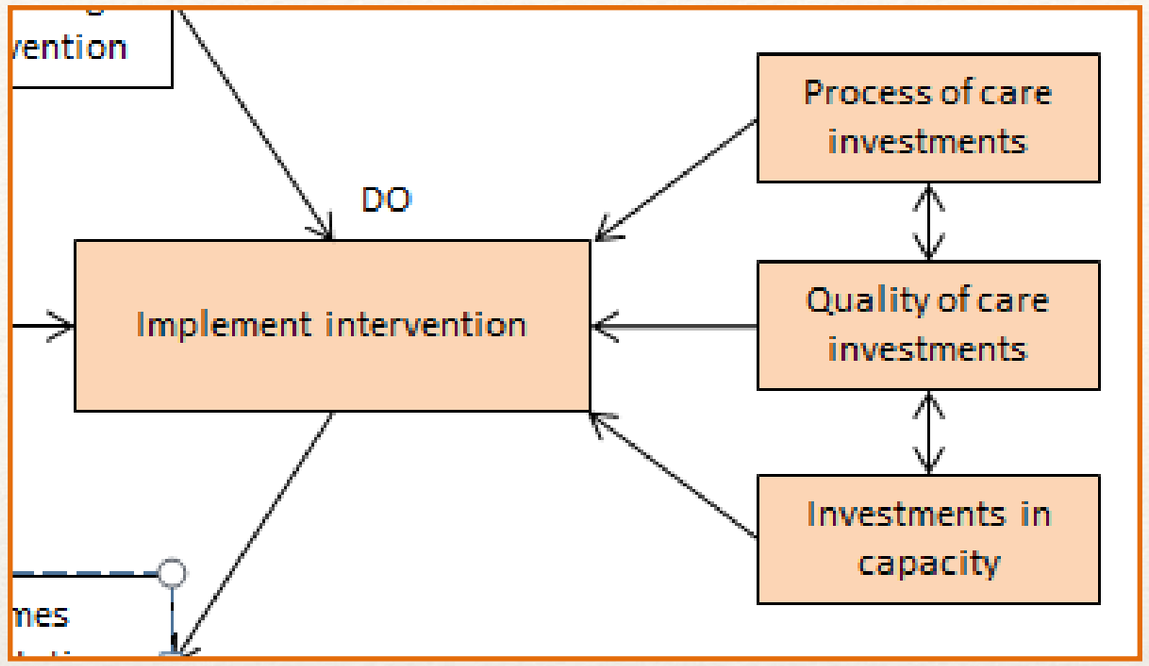
We think it's because of [this reason/theory of change].

What is the evidence-base that supports the claim that this intervention will have the intended effect on the target outcome/target population?

So we plan to [implement this intervention],

Considering the theory of change and historical performance on this outcome, what evidence is there that implementing this intervention will lead to the targeted degree of improvement?

which we think will lead to [improved outcome].

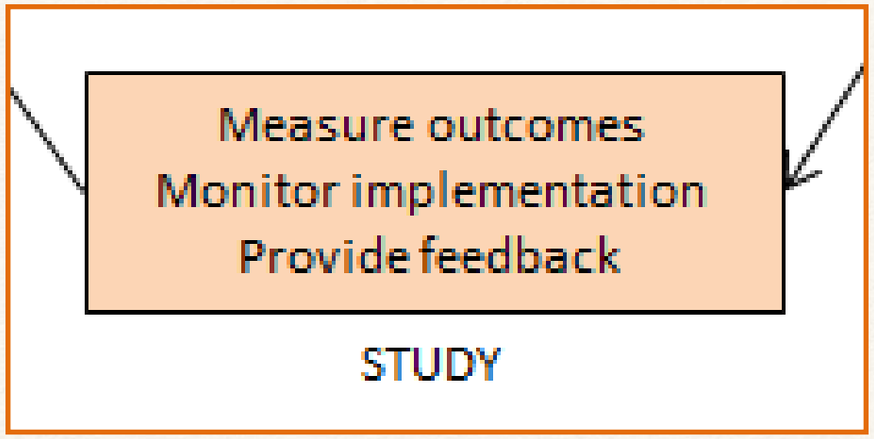


SUPPORT WITH EVIDENCE

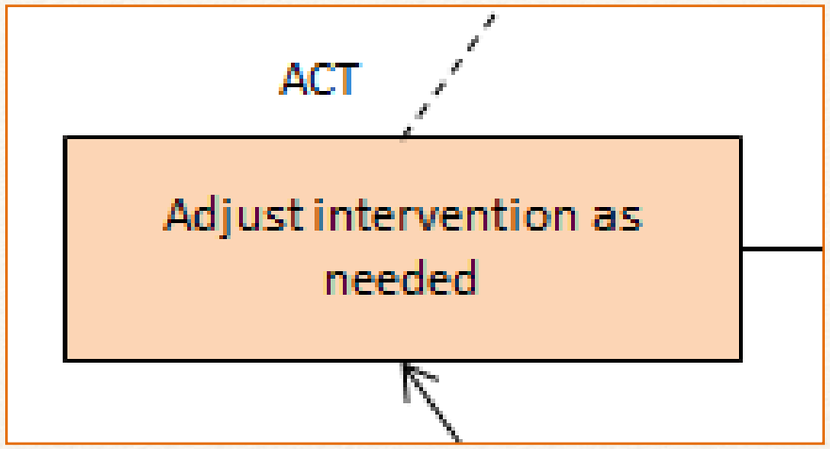
HYPOTHESIS DEVELOPMENT/TESTING

Implement the intervention according to the process, quality, and capacity standards outlined in the evidence-based literature as associated with improved outcomes.

Implement the intervention.



SUPPORT WITH EVIDENCE	HYPOTHESIS DEVELOPMENT/TESTING
After a specified performance period, conduct scientifically rigorous, methodologically appropriate analyses to measure change in the outcome of interest.	Measure progress toward the target outcome.
Conduct periodic process evaluation to acquire evidence as to whether the process is being implemented with fidelity to process, quality, and capacity standards.	Monitor implementation.
Organize the results of process and outcome evaluations so that they are communicated clearly to those who will acquire, process, and use those results to inform strategic decisions.	Provide feedback to relevant decision makers and stakeholders.



SUPPORT WITH EVIDENCE

HYPOTHESIS DEVELOPMENT/TESTING

Use the results of process and outcome evaluation to determine whether/how to proceed with the intervention (i.e., whether/how to make adjustments to investments in process, quality, and capacity).

To what extent does the original performance issue still exist?

Does the extent to which the outcome has improved support the initial theory of change?

Does the intervention need adjustment?

Positive Parenting Yields Diverse Effects on Child Well-Being

Early Childhood

- Improved executive function
- Regular sleep
- Less overly sensitive emotional behavior,
- Increased language, higher vocabulary
- Social skills & school readiness

Middle Childhood

- Less externalizing behavior
- Better school performance
- Positive peer relationships
- Fewer mental health symptoms
- Less abuse, neglect

Adolescence

- Less involvement in JJ
- Less incarceration/hospitalization
- Reduced peer aggression, and association with delinquent peers
- Less drug and alcohol use
- Less risky sexual behavior and STIs
- Fewer pregnancies
- Less psychoticism

Multidimensional Treatment Foster Care

- MTFC: alternative to treating delinquent youth in congregate-care settings
  - Youth placed individually in foster homes
  - Treatment in family setting, focus on youth *and* biological/adoptive family
  - Intensive parent management training to biological/aftercare family
  - Youth attend public schools
- Group Care
  - Youth placed together
  - Most youth attended on-campus schools
  - Group therapy primary treatment mode

Outcomes for MTFC vs. Group Care

Delinquency & Drug Use:

- ½ the number of arrests (and significantly lower violence rates)
- 2/3 fewer days incarcerated
- Significantly less hard drug use

Permanency:

- Significantly more time living with family
- Fewer runaways
- Less time with antisocial friends
- Less unsupervised time

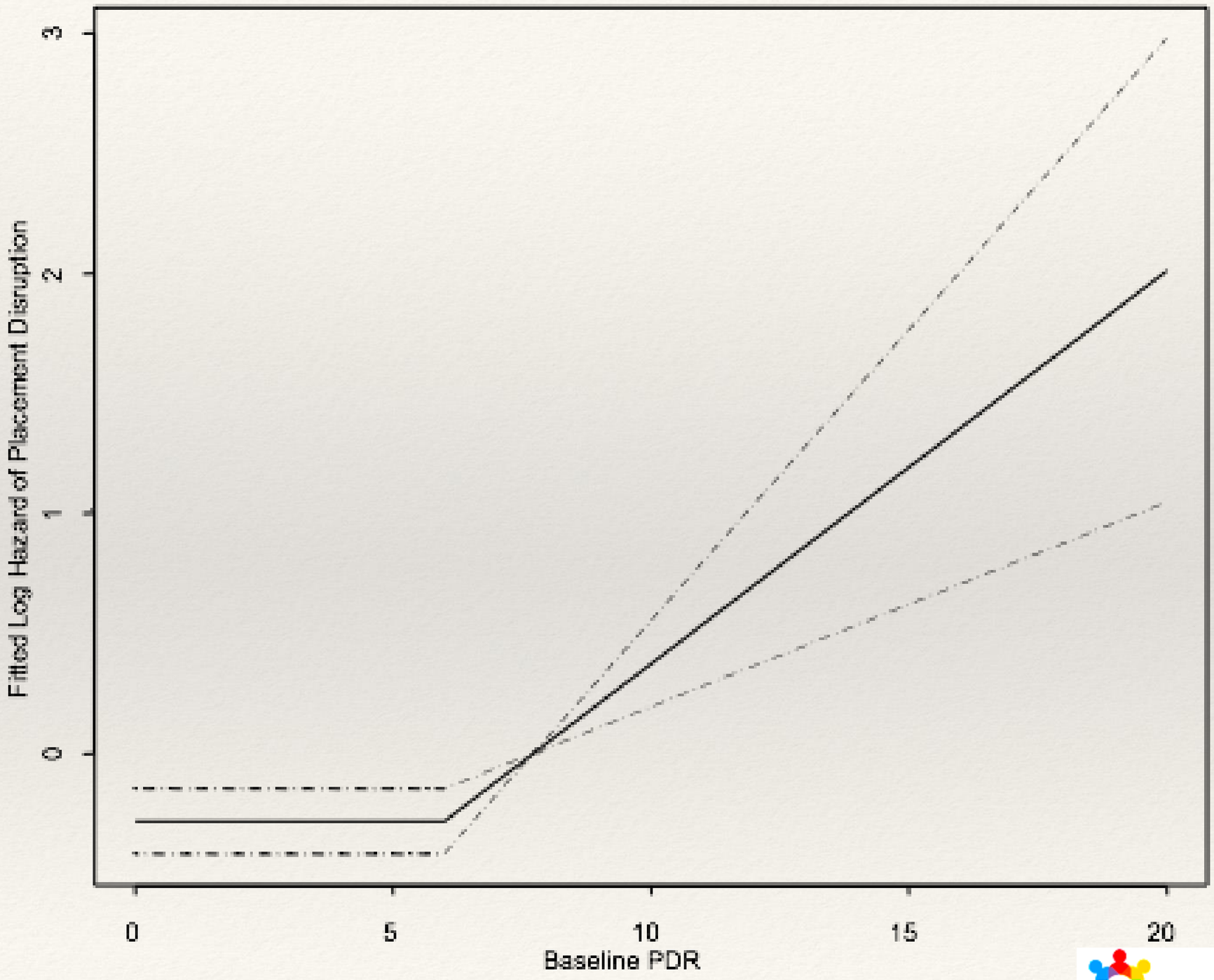
Well-being

- Higher rates of school attendance and homework completion
- Fewer pregnancies (F)
- Less participation in health-risking sexual behavior (F)
- Higher ratings of life satisfaction
- Less depression & Psychoticism (F)

The Problem

- Evidence Based parenting interventions have been used extensively
  - Juvenile Justice contexts (diversion, parole/probation, drug courts, alternatives to residential/group care)
  - Prevention contexts (WIC, Schools, Primary Care)
  - Mental Health contexts (clinic-based, community MH centers, psychiatric hospital)
- But rarely in child welfare systems…
  - Some isolated use as “niche” interventions
  - Not integrated in to daily practice routines
  - Don’t change how case workers interact with parents
  - Can only be expected to have minimal impact given restricted exposure and scope

PDR Scores Predict Placement Disruption
The Threshold Effect



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Potential Solution
Linked EBIs: KEEP, PTC, R3

Objectives

1. To strengthen parenting for foster, biological, and adoptive parents.
2. To change role (time use) of caseworkers to support parenting of children in foster care.
   - Pre-implementation: Readiness and planning (3 months)
   - Initial Implementation: Initial training in three models (12 days, non-continuous)
   - Ongoing Implementation: Weekly consulting and fidelity monitoring (CQI)
   - Sustainability: Total transfer of training and consulting functions to agencies

Keeping Foster & Kinship Parents Supported & Trained

- Increase the parenting skills of foster and kinship parents
- Decrease the number of placement disruptions
- Decrease child behavior & emotional problems
- Organized around Foster Parent roles:
  - Teacher
  - Detective
  - Referee
  - Angel
- The Importance of Cooperation
- Teaching New Behaviors
- Using Charts and Incentives
- Setting Limits
- Discipline Strategies
- The Four to One Rule
- Avoiding Power Struggles
- Pre-Teaching
- Tough Behaviors, School Success, Peer relations

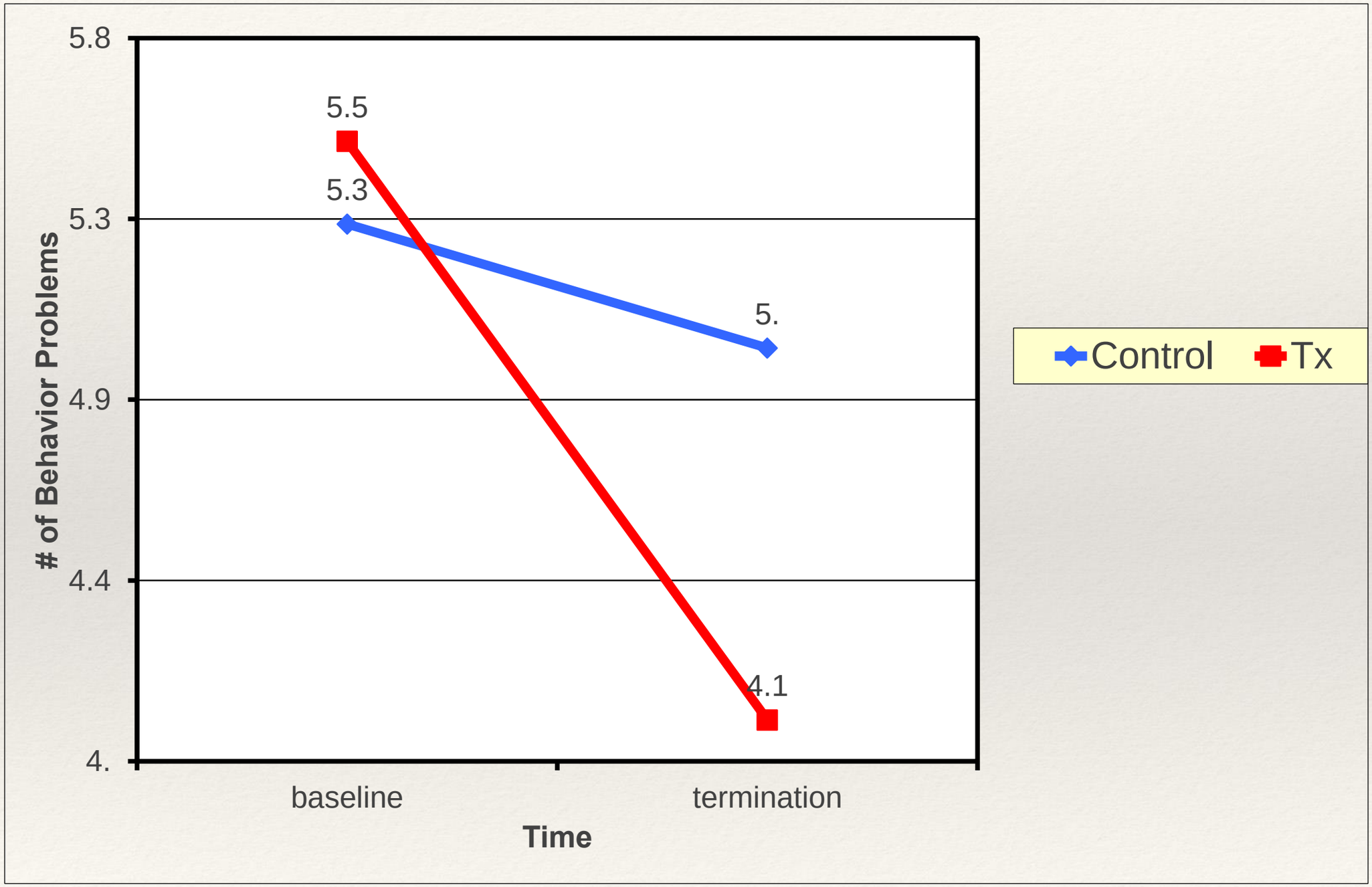
KEEP

- The Model
  - 90 minute group sessions for 16 weeks
  - Weekly Home Practice Assignments
  - Parent Daily Report calls conducted weekly
  - Yearly 10-week booster session
- Research/Outcomes for KEEP
  - Fewer placement disruptions
  - Fewer days to reunification
  - Fewer child behavioral and emotional problems
  - Less escalation in the amount of discipline used

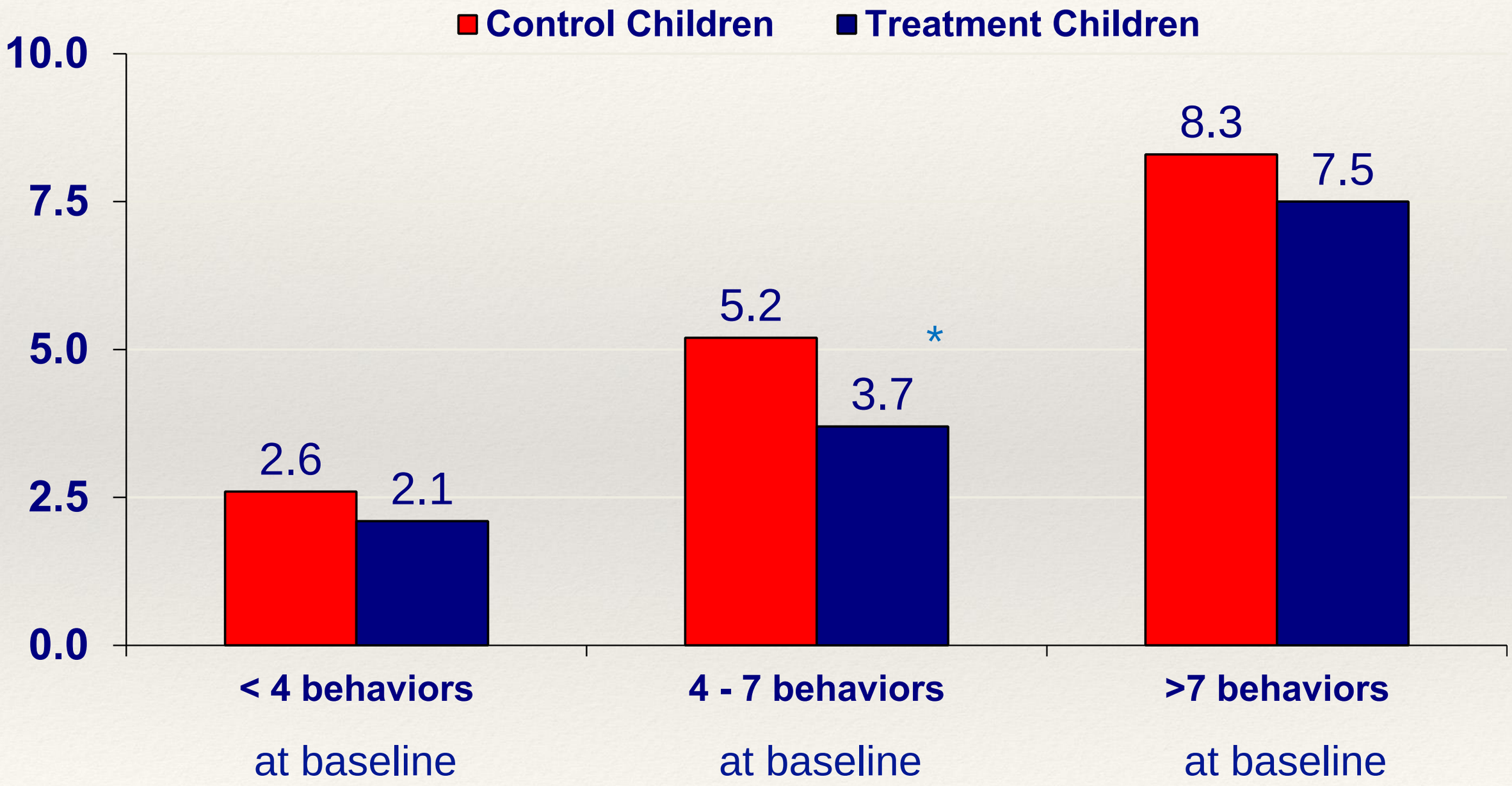
KEEP in the “real world”

- Implemented in the U.S. (NYC, Baltimore, Washington State) and in Europe (Sweden, United Kingdom)
- Quasi-experimental Designs
  - Baltimore: (Greeno & Barth)
  - Significantly reduced placement disruptions
  - Significantly reduced child behavioral/emotional problems
  - 30% increase in use of positive reinforcement relative to discipline
- United Kingdom: (Roberts & Jones)

Child Behavior Problems are reduced: Parent Daily Report



Variation in Impact of KEEP
child problems @ termination X # at baseline



Parenting Through Change - PTC (Forgatch & Patterson)

- The Model
  - 90 minute groups for 10 weeks plus 6 weeks at reunification
  - Weekly home practice
  - Visitation observation checklist
- Research/Outcomes for PTC:
  - Increased positive parenting, decreased coercive parenting (3 years)
  - Reductions in observed and teacher reported externalizing behavior (3 years)
  - Reductions in police arrests for boys (9 years)
  - Reductions in teacher reported delinquency (9 years)
  - Reductions in maternal police arrests (9 years)
  - Children's internalizing and externalizing problem behaviors improved (18 months)
  - Maternal depression decrease (30 months)
  - Reduced teacher reported delinquency and police arrests (9 years)

PTC in the “real world”

- Country-wide in Norway
- State-wide in Michigan and Kansas
- For studies see www.oslc.org

R3: A practice model

- Integrates KEEP and PTC principles in to daily case work routines to impact practice
- The 3 Rs:
  - Reinforce Effort
  - Reinforce Relationship
  - Reinforce Small Steps
- Interactions can help shape the direction and success of the case.
- Quality of interactions influences the experience of caregivers with the child welfare system
- Quality of interactions can influence caregivers' cooperation and collaboration with case planners

R3 Aims to Shape Interactions

Use of Practice Models

- Agency leaders and staff welcome a foundation to create fertile ground for the EBPs they are implementing to take root.
- Supervisors and Caseworkers reportedly enjoyed their work more and enjoyed being cast in more positive roles
- Integrating large system change with multiple moving parts, requires a unifying framework
- Critical for Practice Models to target all levels of the hierarchy
- Possibly get “bang for your buck” by targeting mid-level leaders (i.e., supervisors) whose behavior radiates both up and down

Fidelity Support

Consultation

Feedback

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OUP
Video Feedback

Video Upload

Fidelity Rating

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Total Transfer Model

- Build agency infrastructure to assume training and consultation functions
- Agency workers are certified to be local consultants, trainers and fidelity coders
- Complete 3 group cohorts
- Meet fidelity criteria
- Undergo additional training to be local consultants/trainers
- Become reliable fidelity coders

Then do your own training and consulting locally with only bi-annual calibrations with model developers on fidelity.

Scale Ups Benefit From…

Attention to the Inner Context:

- Partners & Champions: System leadership + agency lead
- Assessment of feasibility and readiness
- Negotiation of the “fit” between EBI & population needs
- Fidelity (observed) & support for CQI
- Establishment of a path to independence

Attention to the Outer Context:

- Policy Context: Clear objectives
- Administrative/Structural Context: Case load size, time use
- Fiscal Context: Incentives, cost neutrality

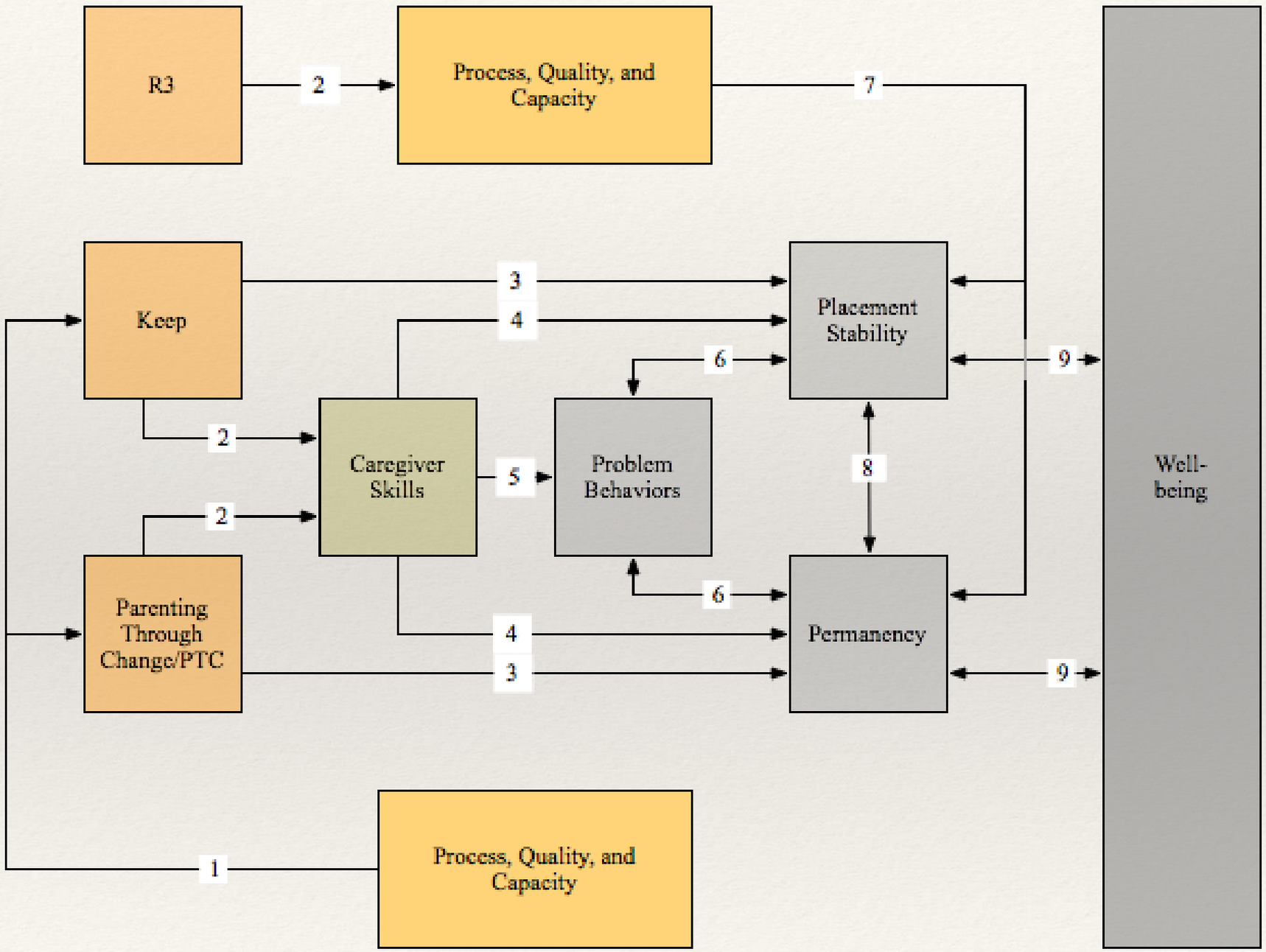
Measures of Implementation Progress

- Leadership (Aarons)
- Stages of Implementation Completion (Saldana & Chamberlain)

Theoretical Model for Detecting Effects

- The developmental address
  - Unique combination of age, gender, living arrangement, period specific developmental well-being, calendar time, etc.
  - A child's address is the unique combination of attributes that links all children with the same bio-developmental, life course address
- The goal of the intervention cocktail is to promote a positive address changes

Logic Model - Theory of Change



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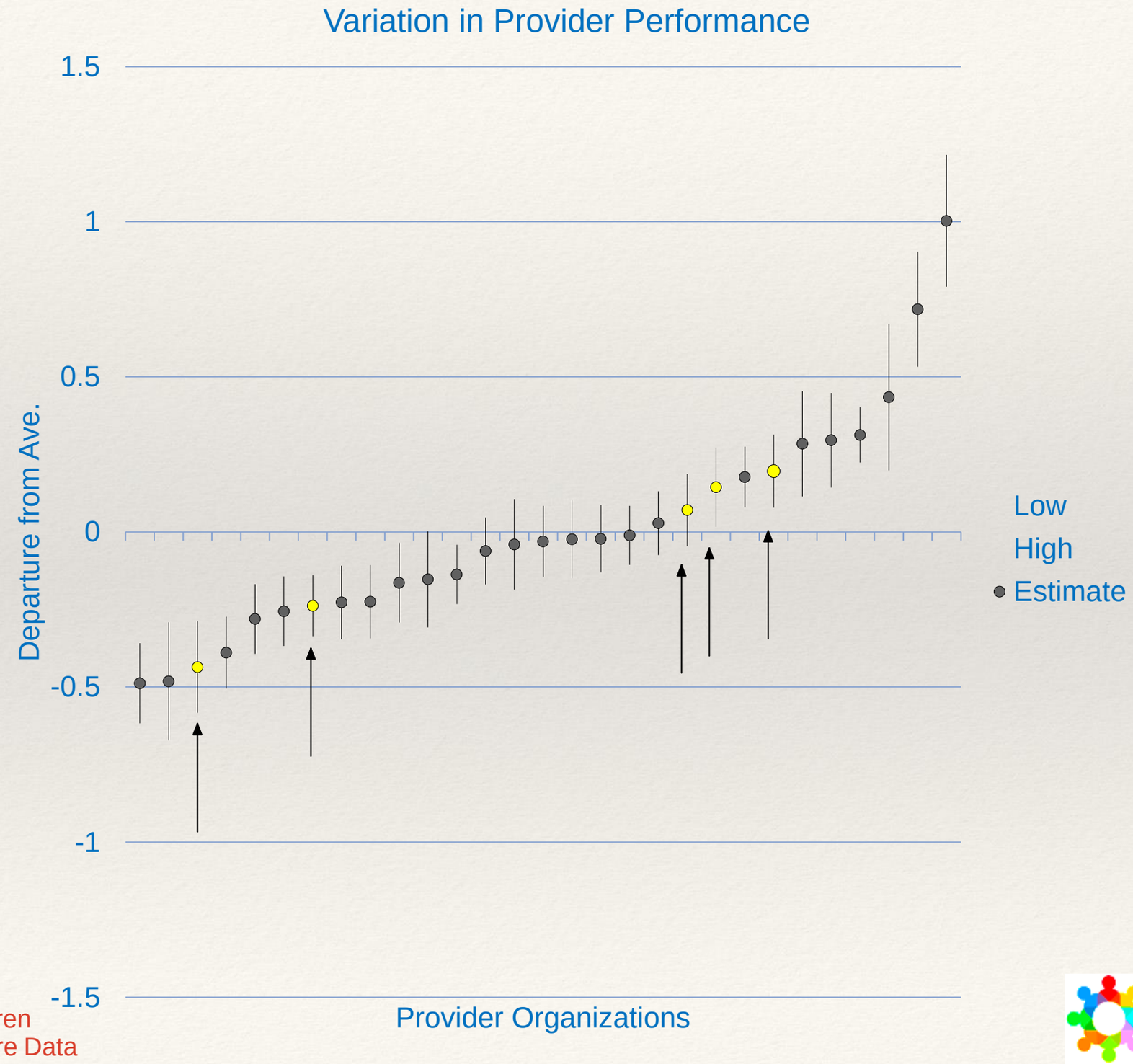
Evidence Used:

System Structure and Performance



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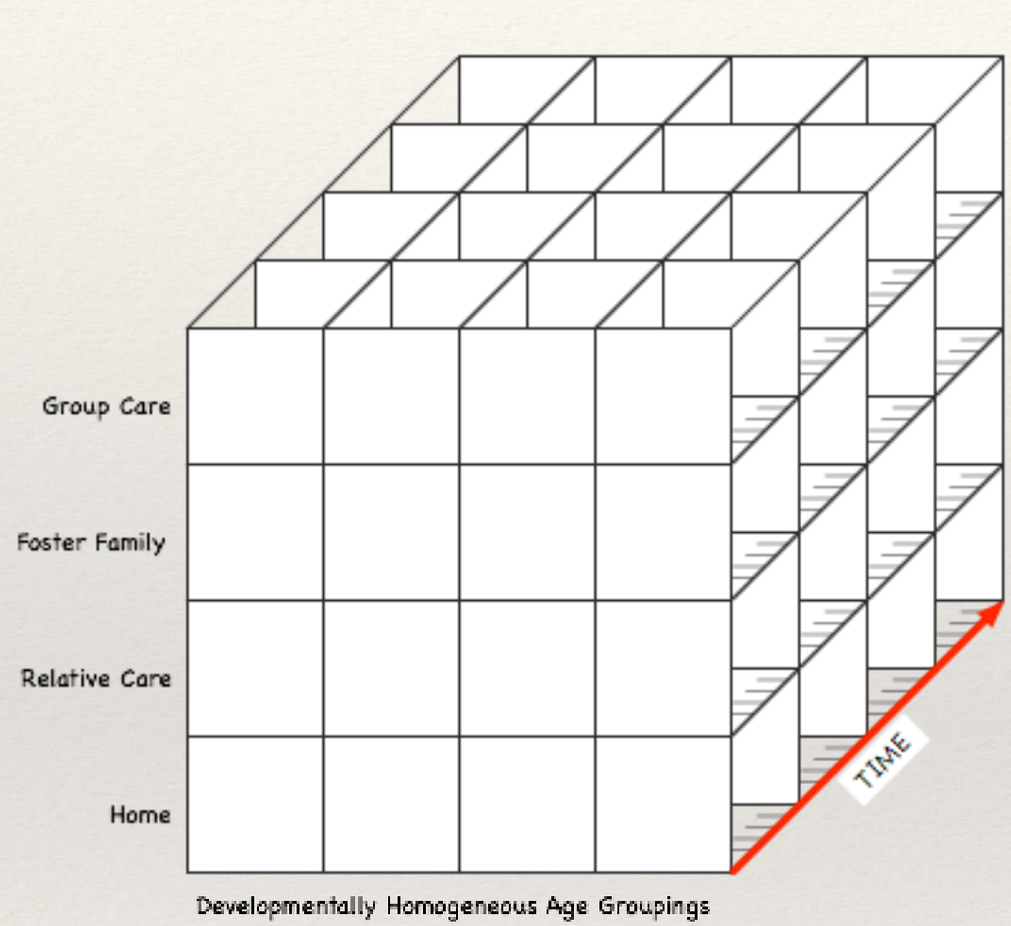
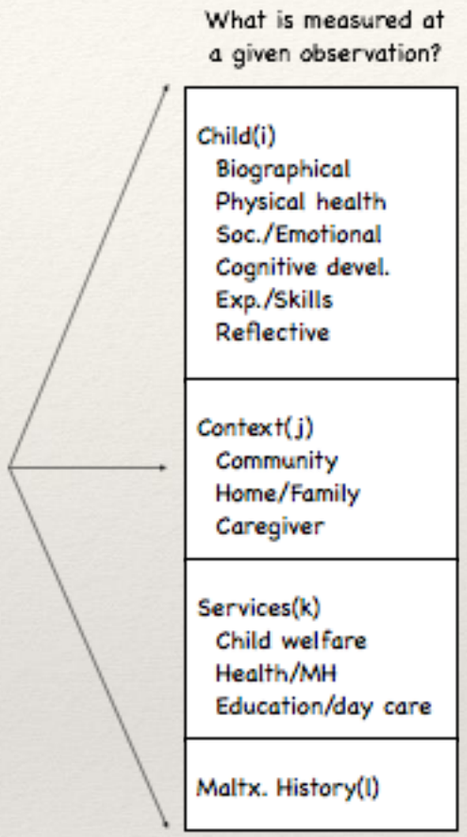
Bio-ecological - Life Course Model





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Evaluation Details

- Multi-level discrete Timme model to complement the multi-level nature of the intervention
- Measuring the likelihood a child will change addresses
  - Permanency
  - Stability
  - Implementation
    - Fidelity
    - SIC

Results

- The model
  - Age, placement type, prior placement history, time (year)
  - The counterfactual
    - All children placed between 2006 through the study date
    - All children exposed to the treatment
- Permanency
  - Looking for period specific changes in the likelihood of permanency
  - 20 percent increase in the rate of exit to permanency
  - Statistically significant
- Stability
  - Looking for a reduction moves
  - Observed a reduction in moves, not statistically significant

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