

Validation of the Child Care Ecology Inventory: *Challenges of Measuring Quality in Home-Based Child Care Settings*

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The Child Care Ecology Inventory (CCEI)

Purpose of the Measure

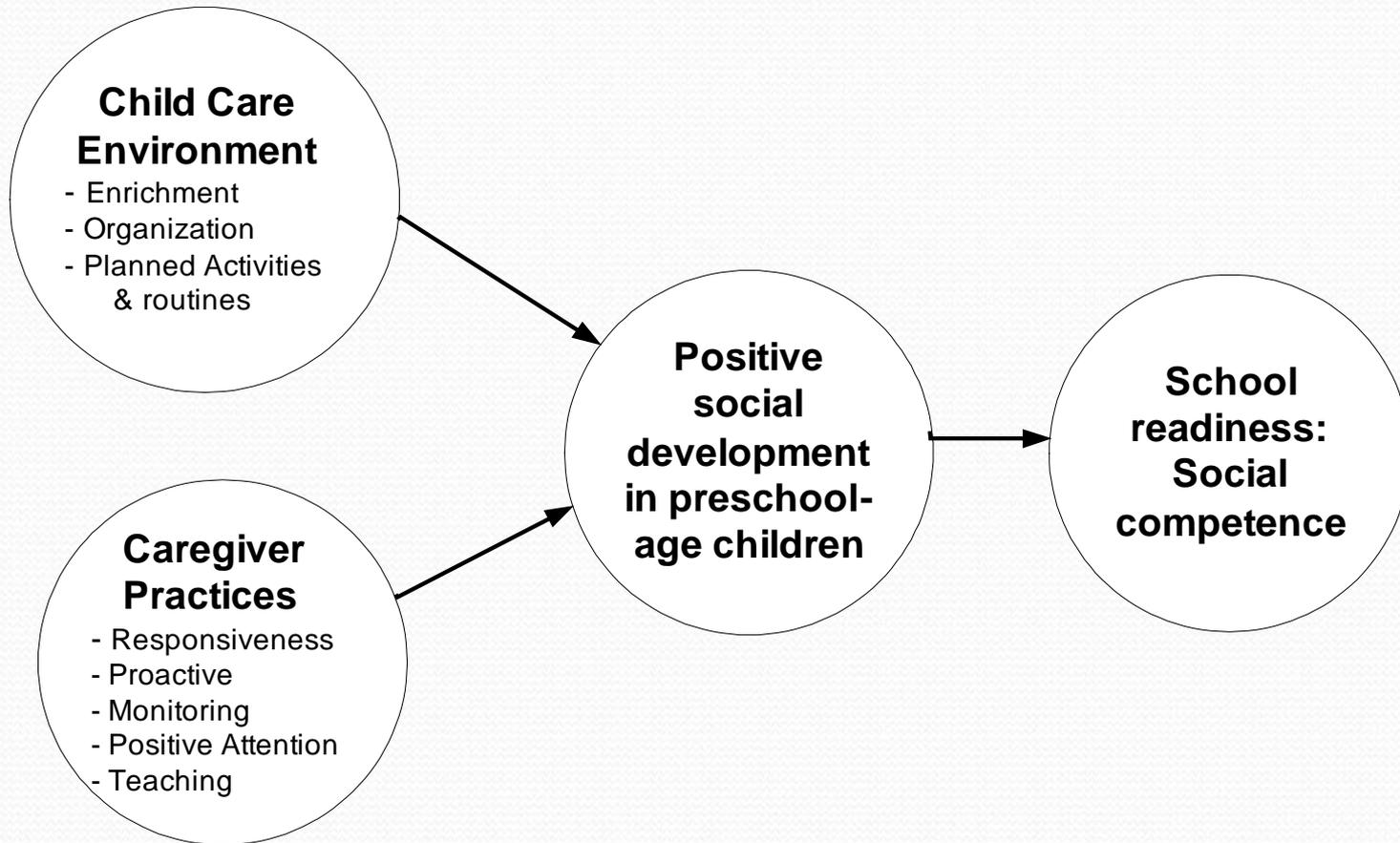


Implications

- To measure the quality of home-based child care settings for promoting social competence in preschool-aged children.
- To evaluate outcomes of a professional development program.
- To provide consultation “coaching” feedback to home-based child care providers (goal development & measure progress towards goals)

- Measure practices that are associated with children’s social outcomes.
- Measure relevant to home-based child care (social validity, utility).
- Measure is sensitive to change.
- Measures specific practices that are malleable (can be taught/learned).

Conceptual Model: Child Care Features for Promoting Positive Social Development



Procedures – Decisions & Issues

- Who completes the measure?
 - Objective observer?
 - Supervisor?
 - Self assessment?
- What is an appropriate scale for the measure?
 - Dichotomous: yes/no
 - Categorical: 0 = not at all in place to 3 = consistently in place
- Balance between desired detail of measure and feasibility
 - Training costs and time
 - Time to complete the assessment



CCEI data is combined from two evaluation studies (baseline)

- 198 child care homes in seven Oregon counties
- 98% of care providers were female
- 67% Caucasian, 11% Hispanic or Latino, 6% African-American, 4% Asian/Pacific Islander, 1% American Indian, 5% multi-racial, 7% unknown or other race.
- 20% had High School diploma or GED, 49% had some college, 28% had an AA degree or higher
- 60% provided child care by themselves



Challenge:

Variance & Reliability of Constructs

CCEI Scale	# Items	Mean	SD	Item Reliability Alpha*	Rater Reliability ICC**
Enriched Environment	6	2.07	.61	.88	.65
Organized Environment	6	1.81	.58	.83	.55
Planned Activities/Routines	8	1.75	.56	.86	.61
Monitoring	4	2.04	.52	.72	.60
Positive Attention	5	1.85	.52	.77	.48
Promoting Social Skills	4	1.81	.71	.86	.50
Teaching Rules	5	1.75	.64	.88	.30

Those in red, range = 0-3.

*Good internal consistency $\geq .70$.

**ICC: .21-.40 = fair, .41-.60 = moderate, .61-.80 = substantial, $> .80$ = nearly perfect.

Are quality practices measured associated with child behavior?

Home-Based Child Care Quality	β	p
Children's negative behavior		
Children-Caregiver Ratio	.17	.022
Organized Environment	-.21	.015
Teaching Rules	-.13	.124
<hr/>		
$F(4,169) = 4.86, p < .001, \text{ adjusted } R^2 = .08$		
Children's Positive Behavior		
Planned Activities/Routine	.33	<.001
Positive Attention	.33	<.001
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$F(4,190) = 26.17, p < .001, \text{ adjusted } R^2 = .34$		

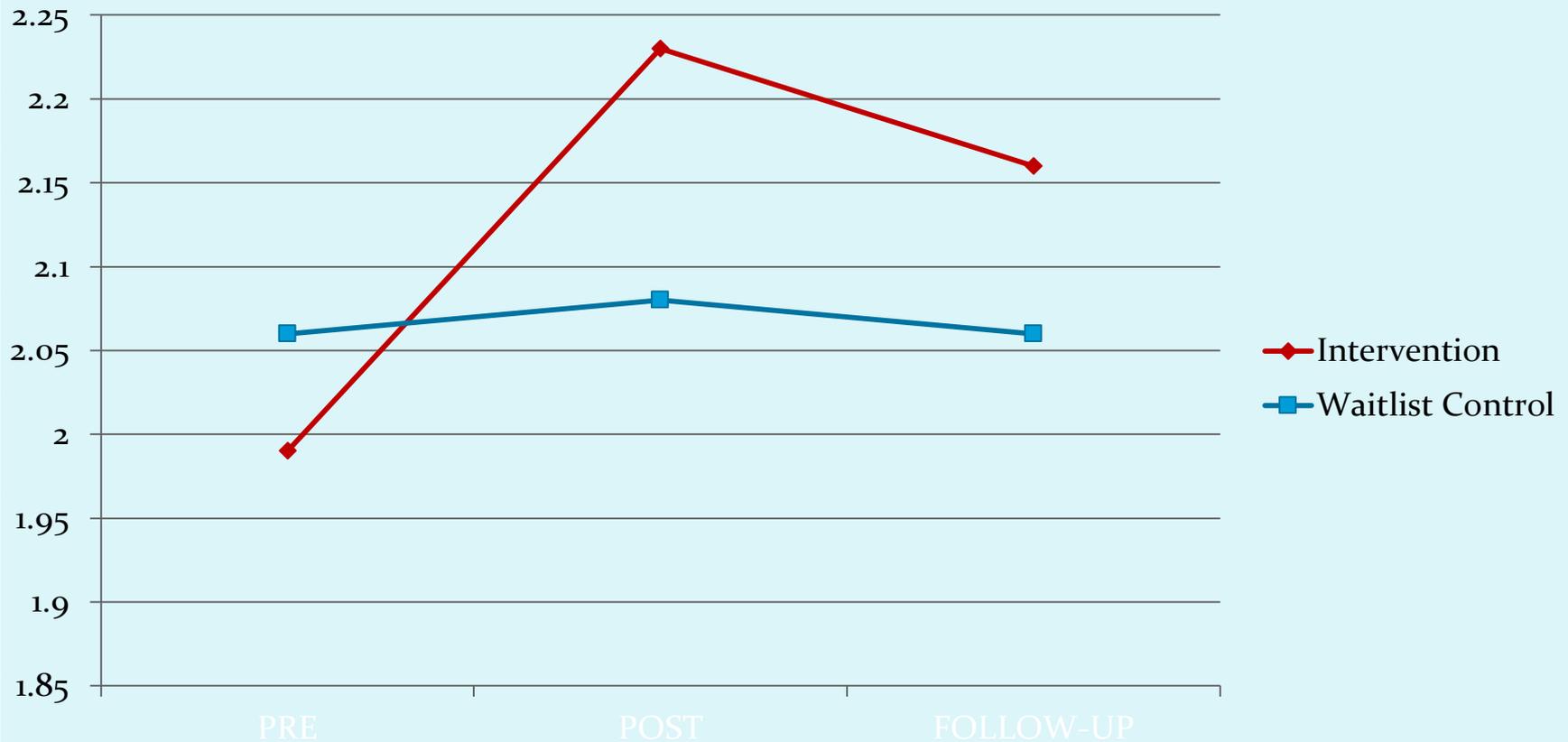
Is the measure relevant for home based child care?



- Caregivers who had more preschool-age children and greater levels of stress because of child problem behaviors were more likely to participate in the coaching consultation which involved CCEI data-based goal setting.
- 52% of child care providers reported that the coaching was very helpful, 35% reported that it was helpful, 14% reported that it was somewhat helpful, and none reported that it was not helpful.

Is the measure sensitive to change?

CCEI Monitoring



Visibility, scanning all areas, circulates, proximity to children needing support/assistance.

Does the CCEI measure specific malleable practices?

- In addition to the main effects on caregiver monitoring
- Dosage effects: those who attended workshops plus the consultation and booster compared to those who did not attend the booster made greater improvements in:
 - Enriched Environment
 - Planned Activities/Routines



Challenge:

understanding lack of change.



- When effects are not found, how to disentangle whether the measure is not sensitive to change or the professional development was not effective in producing changes in practices?
- Environmental practices are more difficult and costly to change.
- Specific caregiver practices vary from day to day
 - They are influenced by intrapersonal and context factors (mood, child behavior, the weather).
 - Feasibility of obtaining a representative sample

Challenges in Home-based Care:



Variety of ages



- Caregivers typically take care of children of different ages: infants, toddlers, preschoolers, and school-age.
- Quality environments and caregiving practices differ for children of differing developmental levels.
- Little research specifies quality for mixed-age groups.
- Preliminary development and testing of an Infant-CCEI has taken place.

Challenges in Home-based Care:

The child care
is their home



- How to arrange the environment that works well for both. Separate spaces or integration of space? Little research on the ideal solution.
- The need to develop trust: issues of strangers (assessors) coming into their home.
- “Are you here to help me make improvements or are you here to find faults and shut me down”

Challenges in Home-based Care:

The majority provide care by themselves.



- Impacts measurement of monitoring
- May impact amount of time spent in transitions
- Likely to impact caregiver's energy and quality of practices at the end of the day (there is no such thing as "break time").
- Allows for more flexible hours that matches parents needs, yet can impede caregivers' ability to make progress on their data-based goals.

*Home-based child care providers
appreciate your attention to these
complex issues.*



Thank-you!

References

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