Strengthening Family Capacity in Part C Early Intervention Programs

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Purpose of the Presentation

- Propose an operational definition of family capacity-building intervention practices
- Describe four elements of family capacity-building and illustrate how they are related
- Illustrate the manner in which participatory experiences and opportunities are an important element of capacity-building practices
- Present findings from a study that promoted and enhanced parents' capacity to provide their children interest-based everyday learning opportunities
- Summarize findings from meta-analyses of family-centered capacity-building studies showing the direct and indirect effects of participatory practices on parent, family, and child outcomes

Part C Final Regulations

Family capacity is described in the Final Regulations for the Early Intervention Program for Infants and Toddlers with Disabilities (34 CFR 303) as activities to determine if early intervention influences families knowledge of their rights, families can effectively communicate their needs, and families ***can assist their children to develop and learn.*** (emphasis is added)

Family Involvement in Early Intervention

Findings from studies of home visiting programs (including Part C early intervention programs) indicate:

- Parents are not generally engaged in learning to help their children develop and learn

- When parents are involved, practitioners often use ineffective and sometimes disempowering practices

- Many practitioners have not learned or are not aware of evidence-based capacity-building methods and strategies

Definition of Family Capacity-Building

Family capacity-building refers to the methods and procedures used by practitioners to create participatory parenting opportunities and experiences to strengthen existing parenting skills and promote the development of new parenting abilities in a manner that enhances and strengthens parenting self-efficacy beliefs.

Participatory Experiences and Opportunities

- Participatory parenting experiences and opportunities refer to situated (real-life) engagement in and use of parenting practices as part of everyday interactions with a child that are contexts for promoting and enhancing child competencies

- A common finding across many different bodies of evidence examining capacity-building experiences and opportunities is the role *active learner participation* plays in strengthening competence and confidence

Examples of the Role of Active Participation in Learning

- Contingency learning study of profoundly delayed children

- Personal responsibility study of elderly nursing home residents

- Movement study of neonatal felines

- Adult learning studies of knowledge and skill acquisition

Early Contingency Learning and Child Concomitant Social-Emotional Behavior

- Contingency learning games for promoting children's acquisition of instrumental behavior

- Multiple-baseline design across participants study

- Measured increases in the children's use of behavior to produce interesting consequences or reinforcing events

- Mapped social-emotional responding onto patterns of learning as indices and contingency awareness of mastery

Raab, M., Dunst, C. J., Wilson, Gl. L., & Parkey, C. (2009) Early contingency learning and child teacher concomitant social-emotional behavior. I*nternational Journal of Early Childhood Special Education,* 1(1), 1-14.

Study Participants

Child	Chronological Age (Months)	Developmental Age (Months)	Developmental Quotient	Diagnosis [a]		
				CP	VI	Seizures
"Amy"	34	5	16	✓	✓	
"Brenda"	48	4	9	✓	✓	
"Cory"	52	3	6	✓		✓

[a] CP = Cerebral palsy, VI = Visual impairment

Child Social-Emotional Behavior

A bar chart titled "Child Social-Emotional Behavior" with the y-axis labeled "PERCENT OF GAME TRIALS" (ranging from 0 to 50) and the x-axis labeled "LEARNING PHASE" with categories Baseline, Acquisition, Mastery, and Maintenance. Three children are compared: Amy, Brenda, and Cory.
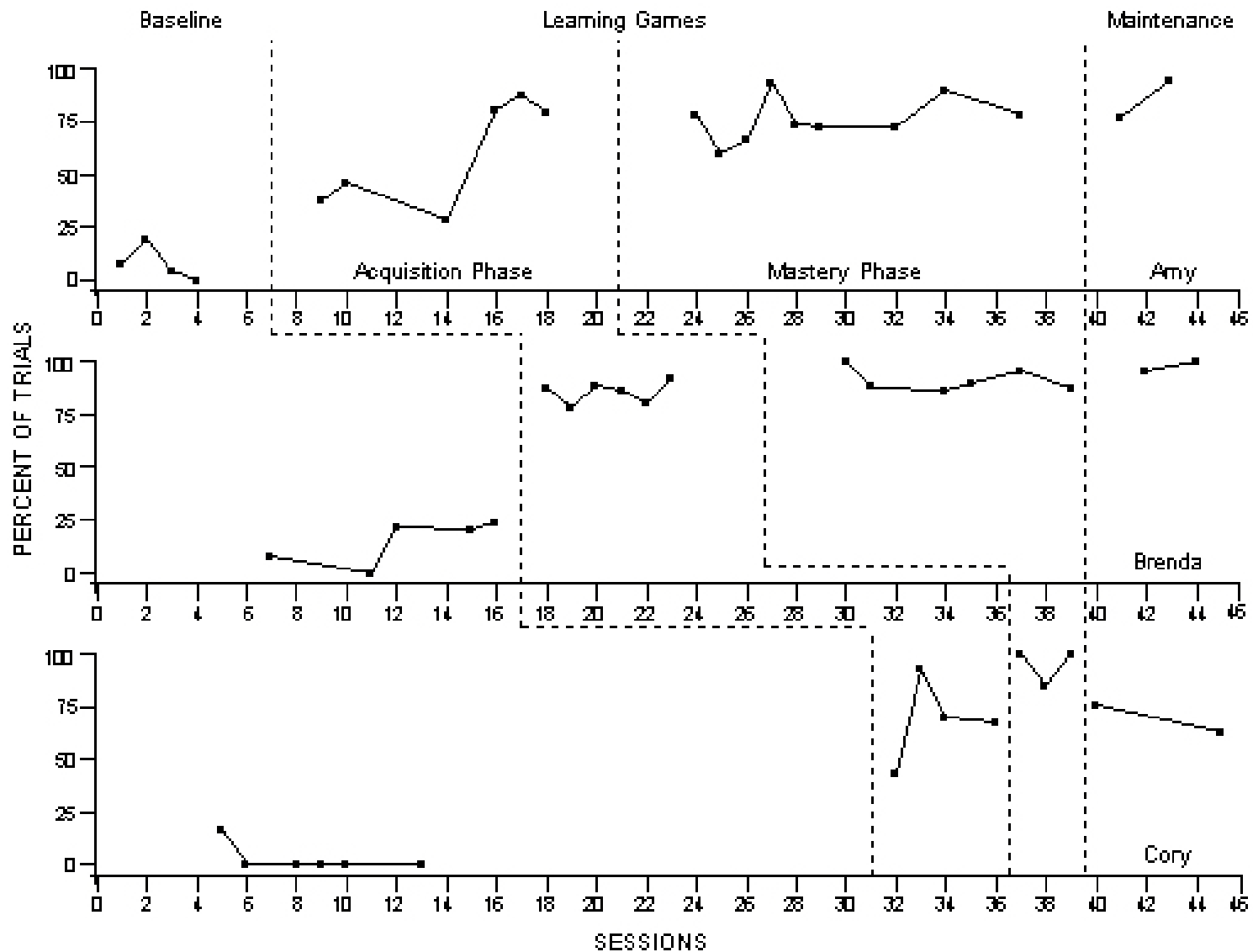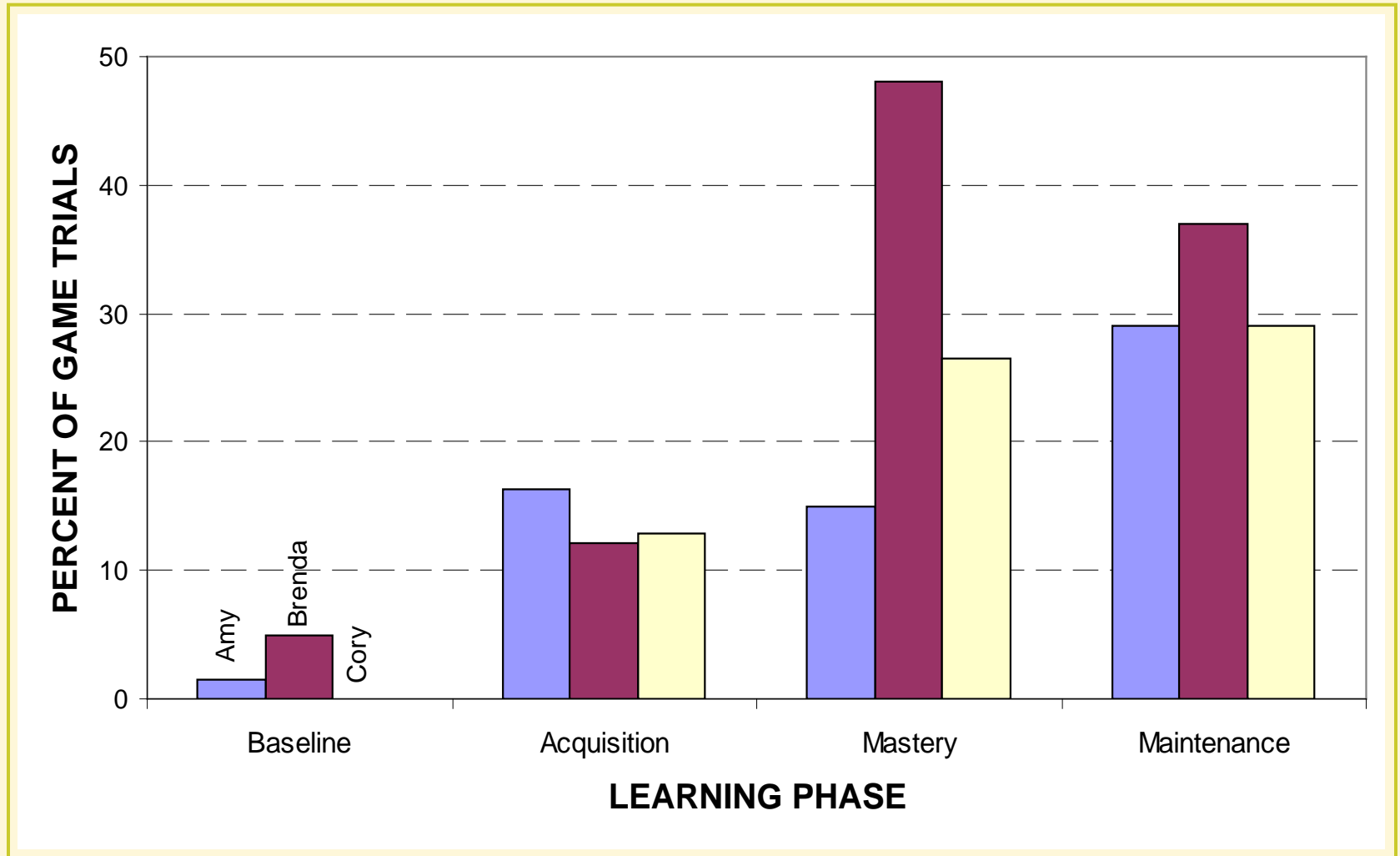
Effects of Choice and Enhanced Responsibility for the Aged

- Responsibility-induced vs. dependency-induced interventions

- Random assignment of nursing home residents living on different floors to the two contrasting conditions

- Short and long-term outcomes of health and functioning:

  - Psychological well-being, perceived control, alertness, sociability, activity level, overall improvement in functioning

  - Nurses and physicians ratings of psychological and physical health, behavioral engagement, and mortality

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Langer, E. J., & Rodin, J. (1976). The effects of choice and enhanced personal responsibility for the aged: A field experiment in an institutional setting. *Journal of Personality and Social Psychology*, 34, 191-198.

Characteristics of the Interventions

The hospital administrator gave a talk to residents in the experimental group emphasizing their responsibility for themselves, whereas the communication to a second, comparison group stressed the staff's responsibility for them as patients. To bolster the communication, residents in the experimental group were offered plants to care for, whereas residents in the comparison group were given plants that were watered by the staff. (Rodin & Langer, 1977, p. 897)

Rodin, J. & Langer, F. (1977). Long-term effects of a control-relevant intervention with the institutionalized aged. *Journal of Personality and Social Psychology,* 35, 897-902.

Study Outcomes

| Dependent Measures	Findings Favored:	
	Responsibility-Induced Group	Dependency-Induced Group
Short-Term Outcomes		
Perceived control		ns
Well-being	✓	
Activity level	✓	
Alertness	✓	
Sociability	✓	
Overall improvement	✓	
Long-Term Outcomes		
Well-being		ns
Engagement	✓	
Sociability	✓	
Self-initiating behavior	✓	
Mortality		✓

Movement-Produced Stimulation in the Development of Visually Guided Behavior

- Active production vs. passive recipient of movement-induced stimulation

- Random assignment of kitten litter mates to the two contrasting conditions

- Outcomes included coordinated paw placements and discrimination

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Held, R., & Hein, A. (1963). Movement-produced stimulation in the development of visually guided behavior. *Journal of Comparative Physiological Psychology*, 56, 872-876.

Contrasting Movement-Produced Stimulation Conditions
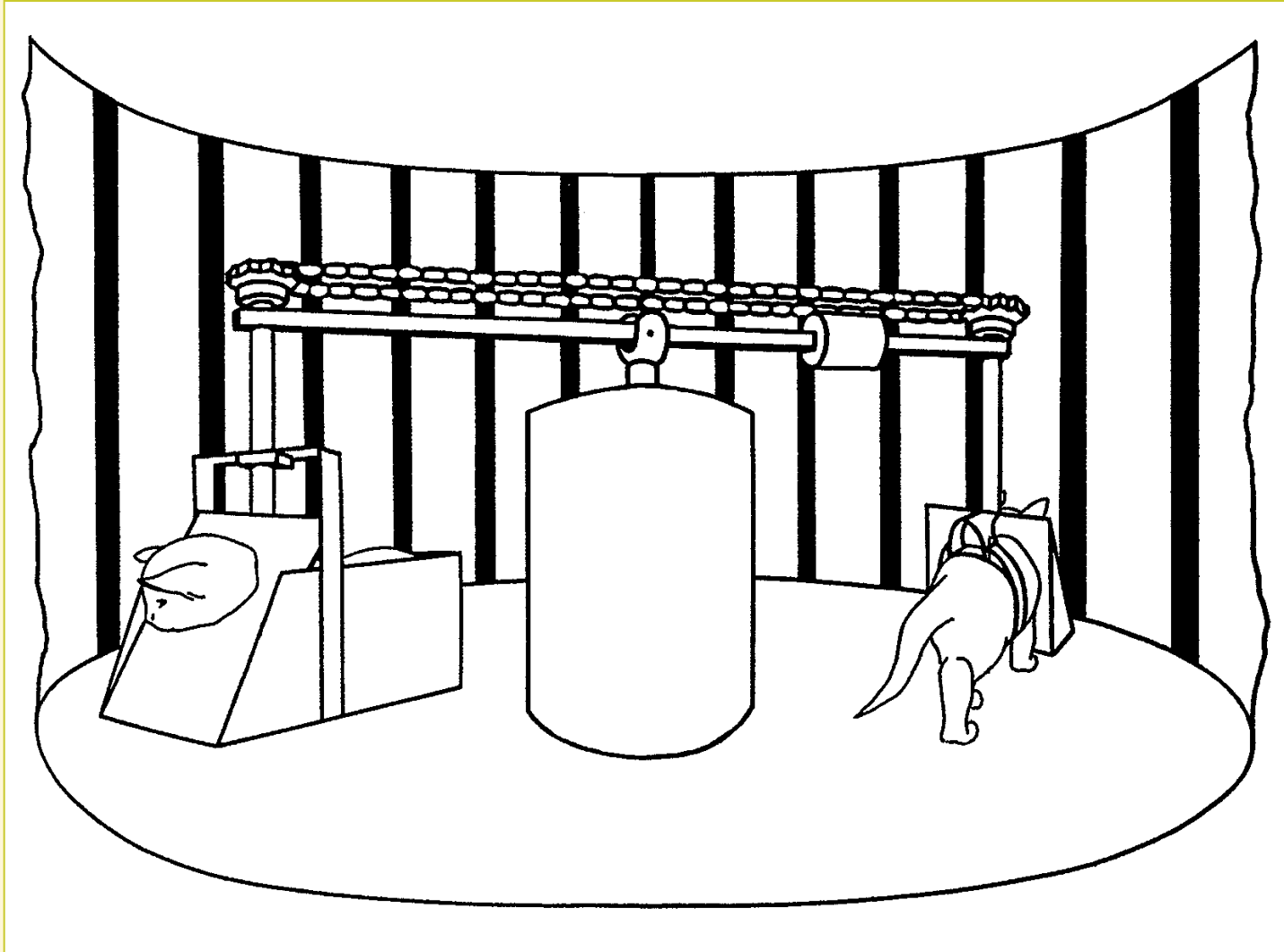
Study Results

- The active participant kittens all demonstrated visually-guided paw placement after exposure to the apparatus whereas none of the passive participant kittens demonstrated the same behavior

- The active participant kittens all demonstrated the ability to discriminate shallow from deep cliffs whereas none of the passive participant kittens demonstrated the same ability

Research Synthesis of Adult Learning Studies

- Research synthesis of studies of accelerated learning, coaching, guided design, and just-in-time training

- 58 randomized control design studies

- 2,095 experimental group participants and 2,213 control or comparison group participants

- Combination of studies in university and non-university settings

- Learner outcomes included changes or improvements in knowledge, skills, attitudes, and self-efficacy beliefs

- The influence of the adult learning methods on the learner outcomes was estimated by weighted Cohen's *d* effect sizes for the differences on the post test scores for the intervention vs. nonintervention group participants

Dunst, C.J., Trivette, C.M., & Hamby, D.W. (2010). Meta-analysis of the effectiveness of four adult learning methods and strategies. *International Journal of Continuing Education and Lifelong Learning*, 3(1), 91-112.

Characteristics Used to Code and Evaluate the Implementation Studies[a]

Planning

Introduce   Engage the learner in a preview of the material, knowledge or practice that is the focus of instruction or training

Illustrate   Demonstrate or illustrate the use or applicability of the material, knowledge or practice for the learner

Application

Practice   Engage the learner in the use of the material, knowledge or practice

Evaluate   Engage the learner in a process of evaluating the consequence or outcome of the application of the material, knowledge or practice

Deep Understanding

Reflection   Engage the learner in self-assessment of his or her acquisition of knowledge and skills as a basis for identifying "next steps" in the learning process

Mastery   Engage the learner in a process of assessing his or her experience in the context of some conceptual or practical model or framework, or some external set of performance standards or criteria

[a] Donovan, M. et al. (Eds.) (1999). *How people learn.* Washington, DC: National Academy Press.

# Most Effective Assistive Technology Training Methods

Characteristic	Practice	Mean Effect Size
Introduction[a]	Out of class activities/self-instruction	0.64
	Classroom/workshop presentations	0.63
	Pre-class learner exercises	0.54
Illustration[a]	Instructor role playing/simulations	0.55
	Learner informed input	0.53
Practicing[b]	Real life learner application	0.94
	Real life learner application/role playing	0.86
Evaluation[b]	Self assessment of strengths/weaknesses	0.94
Reflection[c]	Identify performance improvement goals	1.27
	Journaling/behavior suggestions	0.82
Mastery[c]	Standards-based assessment	0.86

[a]Instructor practices. [b]Learner practices. [c]Learner-instructor practices.

Differential Effectiveness of Active Adult Learning
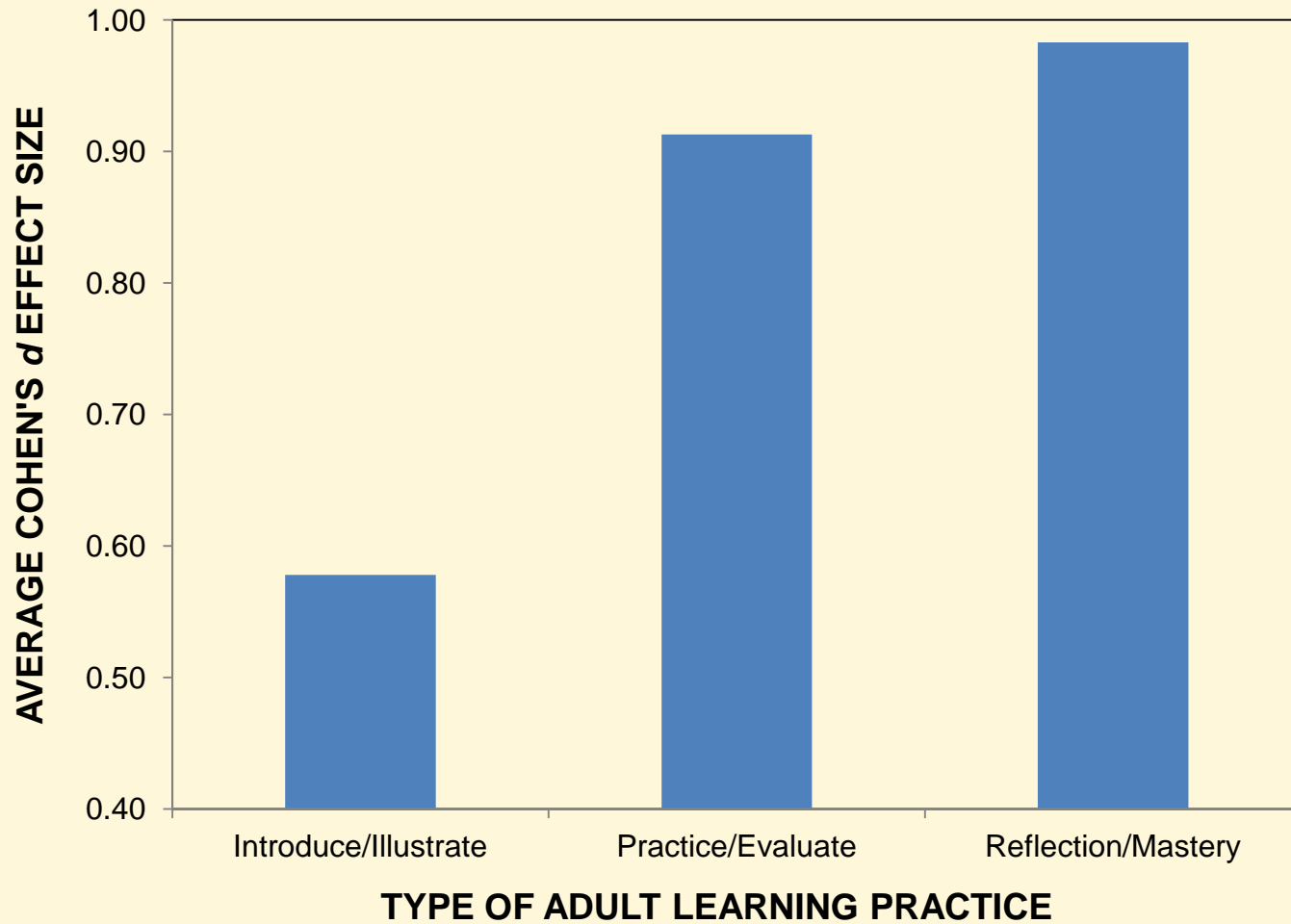
Cumulative Effects of Different Combinations of the Most Effective Adult Learning Method Practices

NUMBER OF ADULT LEARNING METHOD PRACTICES
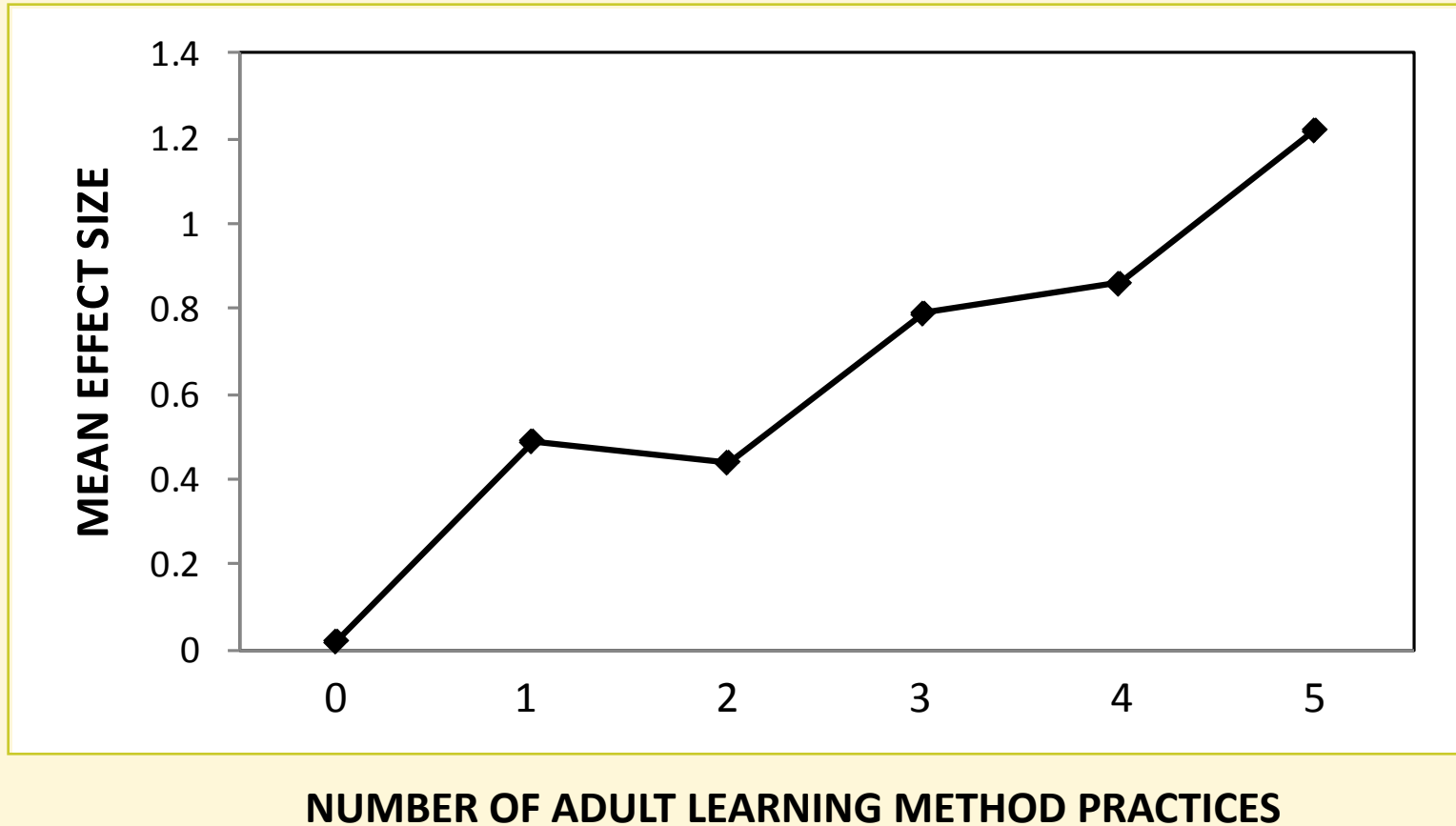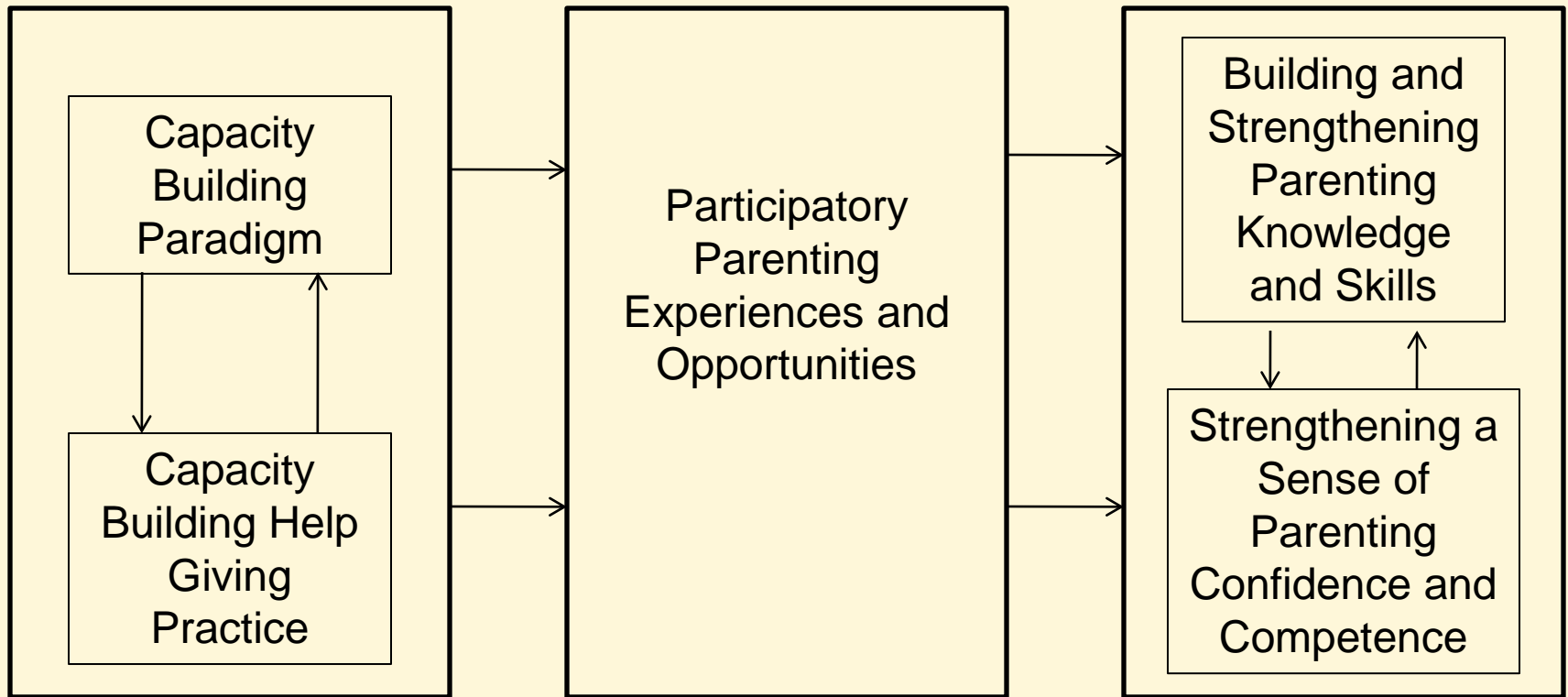
Model of Family Capacity-Building

Four Elements of Capacity-Building

- Capacity-building as a model or paradigm for structuring how early childhood practitioners work with families
- Capacity-building as a set of help giver practices that engage parents in participatory experiences and opportunities that build and strengthen parent and family capacity
- Capacity-building as parenting knowledge and skills for carrying-out parenting responsibilities and promoting child learning
- Capacity-building as a sense of parenting competence and confidence

Relationship Between the Four Elements of the Capacity-Building Model

Contrasting Approach to Early Intervention

Capacity Building Models		Traditional Models
Promotion	vs.	Treatment
Empowerment	vs.	Expertise
Strengths-Based	vs.	Deficit-Based
Resource-Based	vs.	Service-Based
Family-Centered	vs.	Professional Centered

Dunst, C. J., & Trivette, C. M. (2009). Capacity-building family systems intervention practices. *Journal of Family Social Work*, 12(2), 119-143.

Parenting Capacity-Building Paradigm

Models	Main Focus
Promotion	Enhance and promote parenting knowledge and skills
Empowerment	Create opportunities that support and strengthen a sense of parenting confidence and competence
Strengths-Based	Build on existing parenting capabilities as the basis for promoting new parenting skills
Resource-Based	Use a range of resources and supports for enhancing parenting capabilities
Family-Centered	Engage parents in participatory experiences and opportunities to strengthen and promote parenting knowledge, skills, and self-efficacy beliefs

Capacity-Building Parenting Opportunities

Parenting experiences and opportunities that actively involve parents in everyday, real life parenting activities are more likely to have capacity-building characteristics and consequences. These include, but are not limited to, a parent providing his or her child everyday learning opportunities to promote child development and using naturalistic teaching strategies and responsive parenting interactional styles to encourage and support child learning.

Building and Strengthening Parenting Confidence and Competence

The experiences afforded parents to strengthen existing and build new parenting capacity must also influence or change a parents' sense of confidence and competence if the parent is to sustain engagement in parenting behavior

- A *sense of competence* refers to the (self-efficacy) belief that one's behavior will have the expected effect or outcome

- A *sense of confidence* refers to the (self-efficacy) belief that one has the capacity to perform a task competently

Contrasting Consequences of Different Parenting Experiences
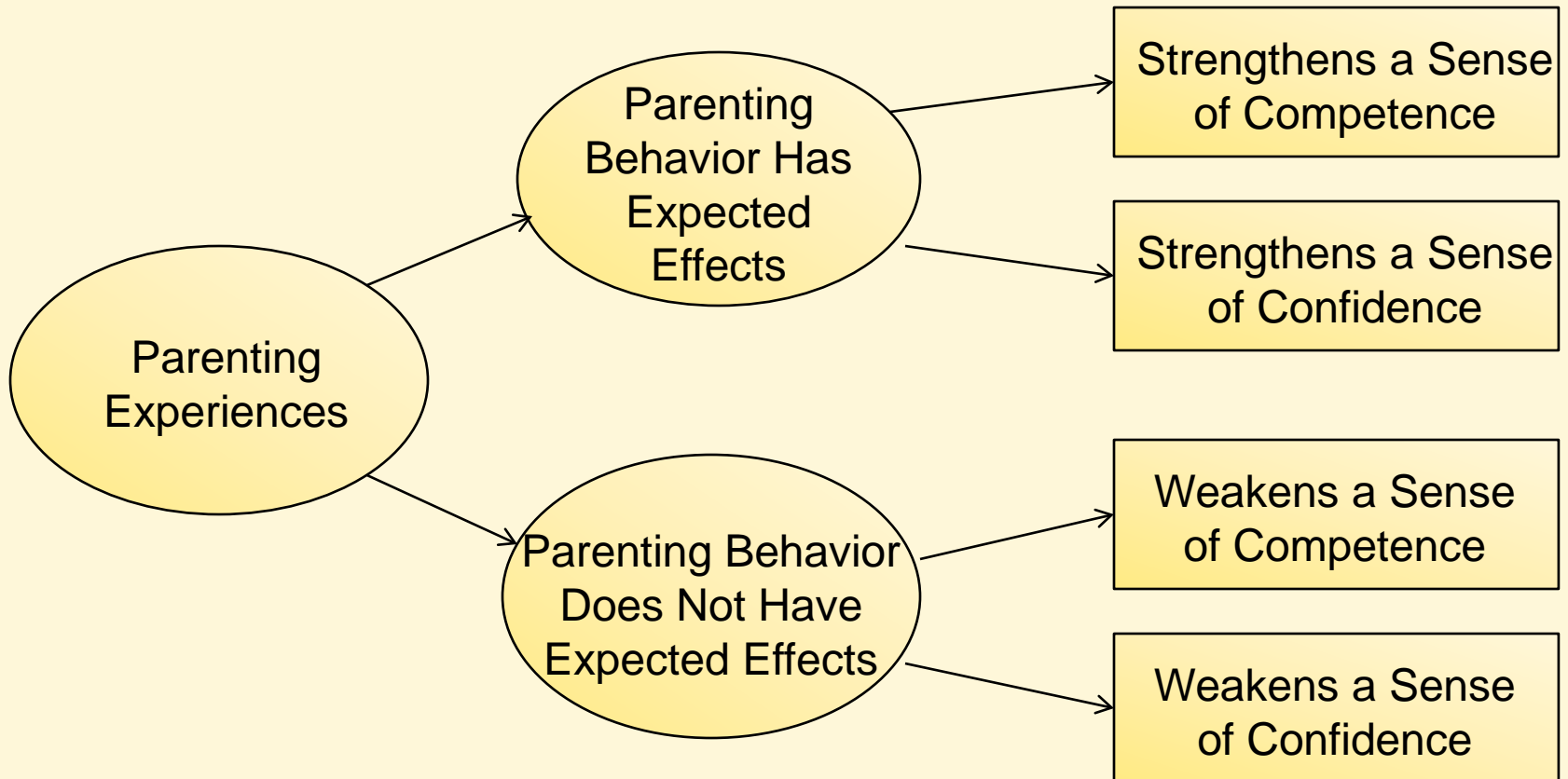
Adopted from Goldberg, S. (1977). Social competence in infancy: A model of parent-infant interaction. *Merrill-Palmer Quarterly*, 23, 163-177.

Model for Showing the Relationship Between Capacity-Building Help Giving Practices and Capacity-Building Parenting Experiences and Outcomes
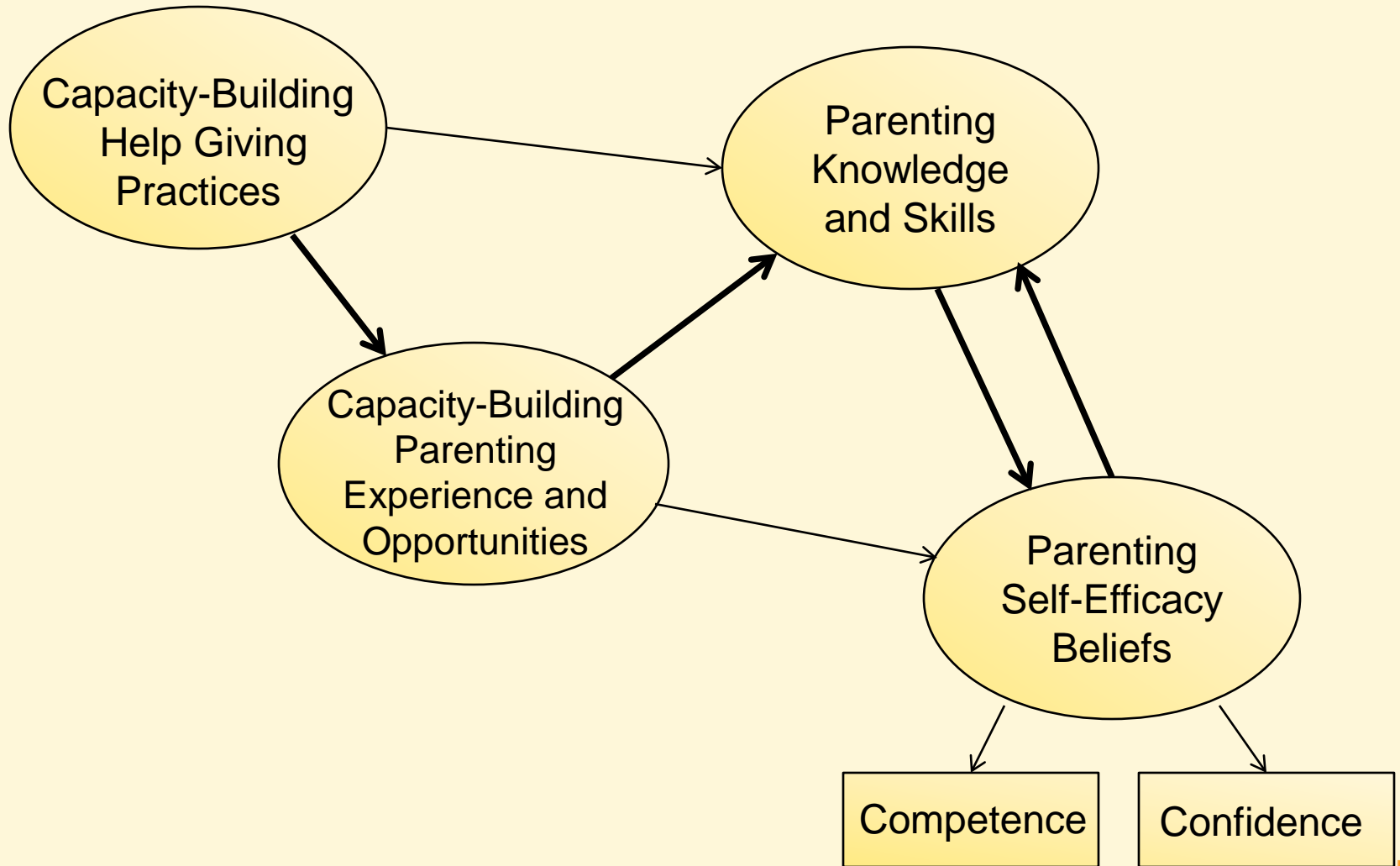
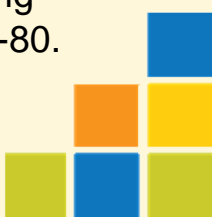# Caregiver Confidence and Competence Associated With the Use of Caregiver-Mediated Intervention Practices

Purpose: Determine the extent to which the use of caregiver-mediated everyday child learning was associated with improvements in caregiver skills, competence, and confidence

Study Participants: Three mothers and one grandmother of preschool aged children with disabilities or developmental delays

Outcomes: Measures of parenting behavior (skills) and parenting self-efficacy beliefs (confidence and competence)

Methodology: Multiple baseline design across study participants

Swanson, J., Raab, M., & Dunst, C.J. (2011). Strengthening family capacity to provide young children everyday natural learning opportunities. *Journal of Early Childhood Research,* 9(1), 66-80.

Caregiver-Mediated Early Intervention Practices

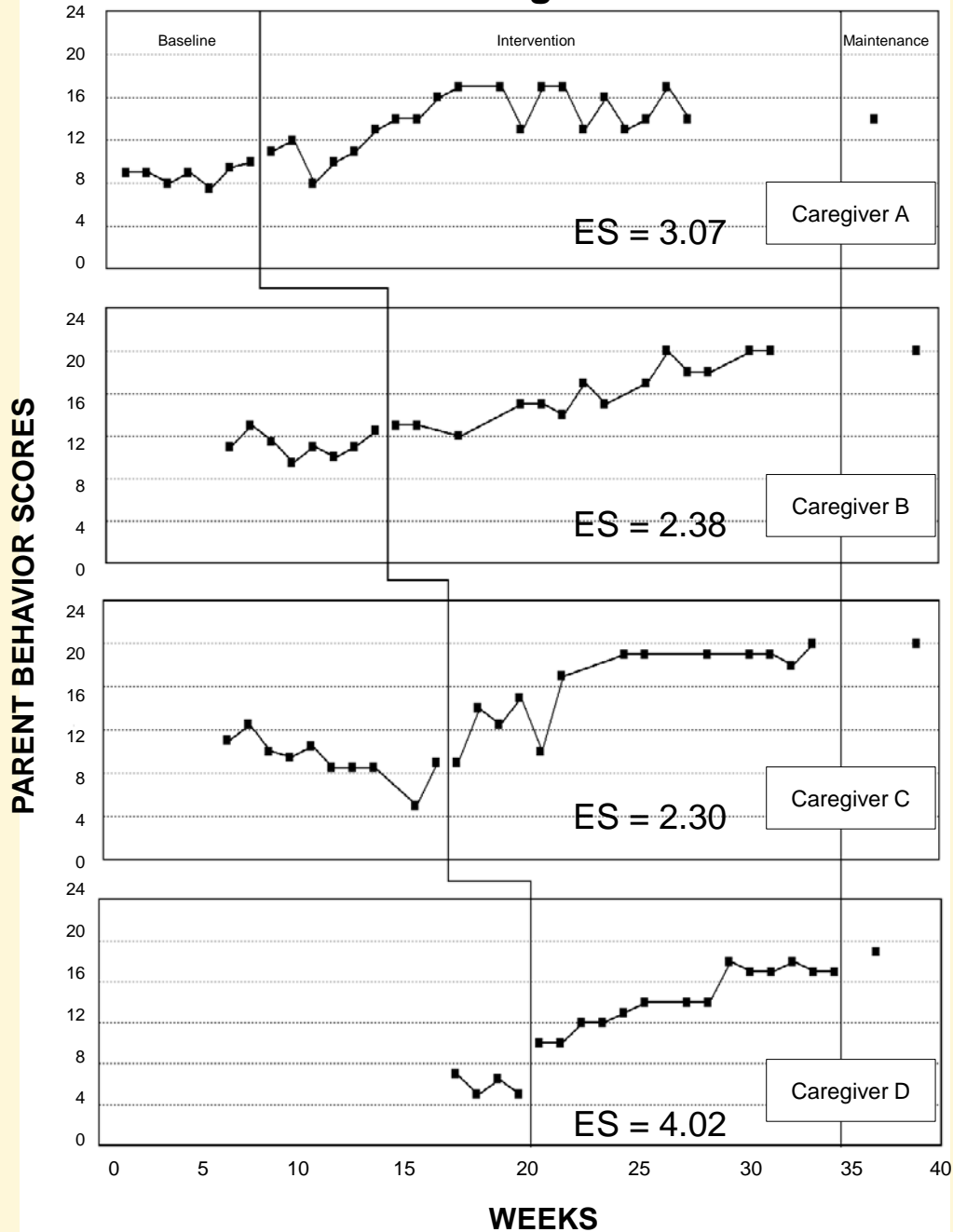- Participants identified the children's interests, the everyday activities that were sources of interest-based learning opportunities, and the responsive caregiver behavior that was used to engage and sustain child engagement in interest-based everyday child learning

- Study participants used child interest-based everyday activities as sources of child learning opportunities where the participants supported and encouraged child learning in the activities using responsive teaching procedures

- An early childhood practitioner used participatory parenting experiences and opportunities to support and encourage the caregivers' use of the natural environment practices

Parenting Skills

Baseline | Intervention | Maintenance

Caregiver A — ES = 3.07

Caregiver B — ES = 2.38

Caregiver C — ES = 2.30

Caregiver D — ES = 4.02
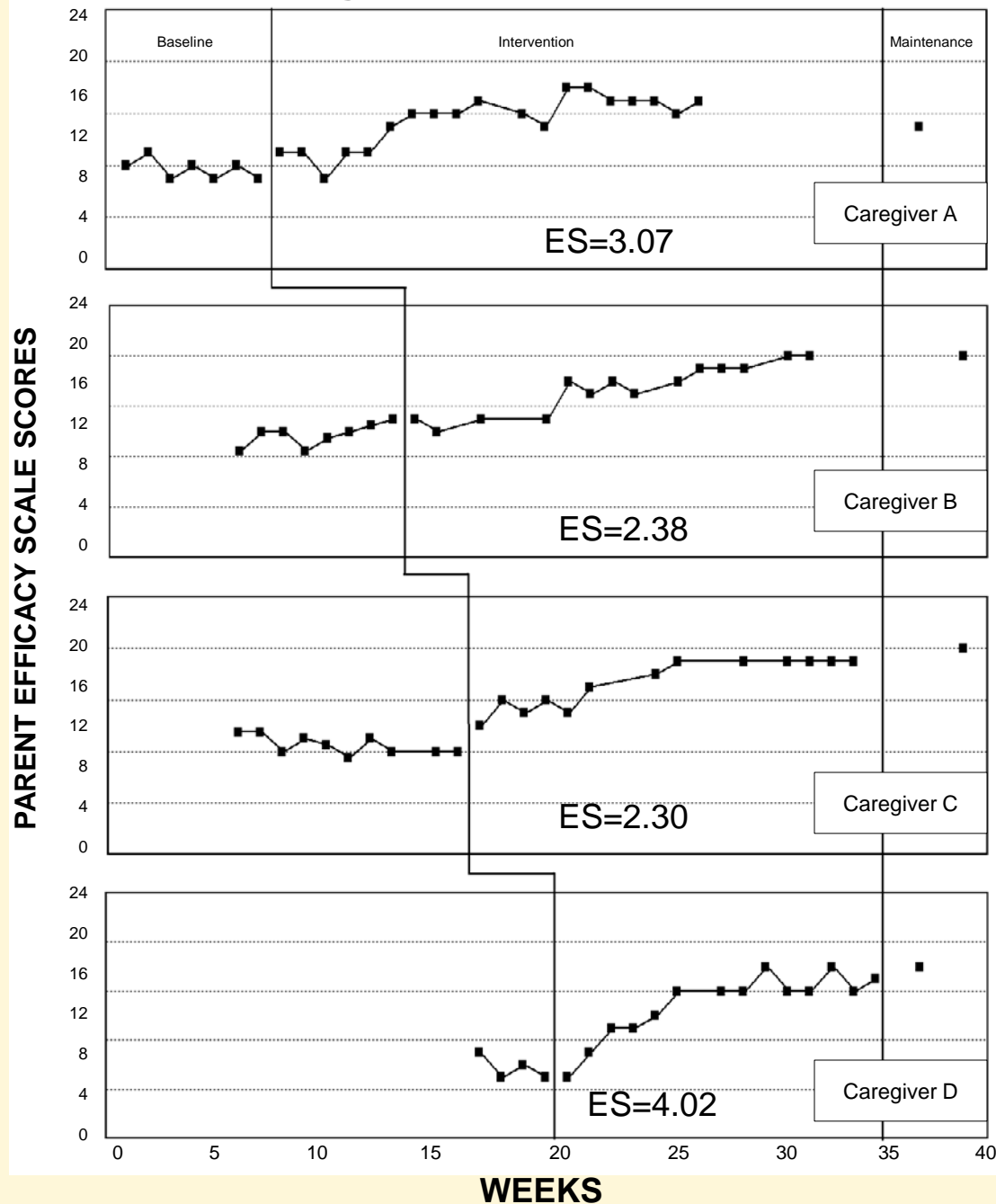
PARENT BEHAVIOR SCORES

WEEKS

Adoption and use of everyday activities as sources of interest-based child learning opportunities strengthened and promoted parents skills in using the natural learning environment practices
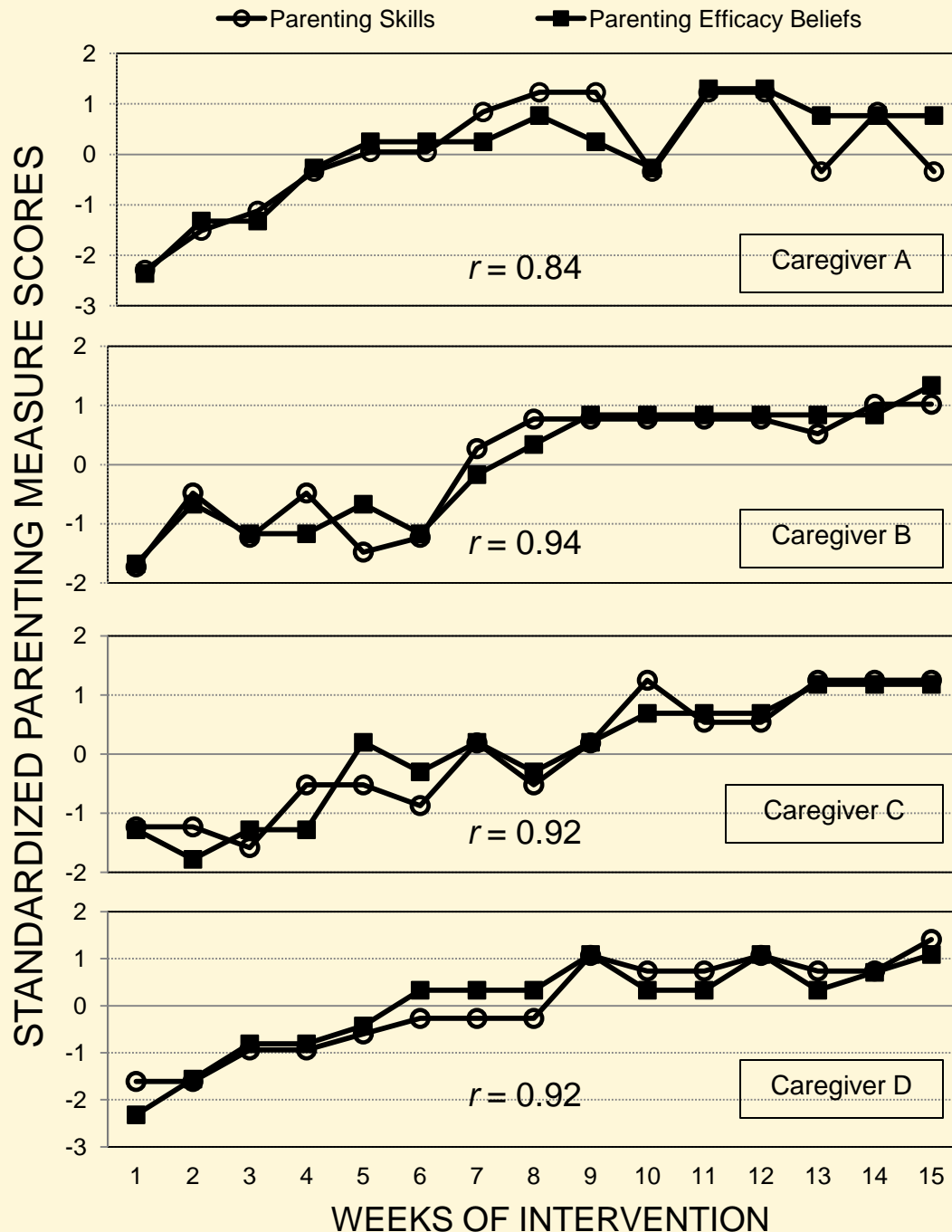
(NOTE. ES = Estimated Cohen's *d* effect size)

Parenting Confidence and Competence

Findings also showed that promoting caregivers' use of everyday activities as sources of interest-based child learning opportunities had the effect of strengthening parenting competence and confidence

(NOTE. ES = Estimated Cohen's *d* effect size)

Parenting Skills — Parenting Efficacy Beliefs

STANDARDIZED PARENTING MEASURE SCORES

WEEKS OF INTERVENTION

Caregiver A — $r = 0.84$

Caregiver B — $r = 0.94$

Caregiver C — $r = 0.92$

Caregiver D — $r = 0.92$

Changes in both parenting skills and parenting confidence and competence mapped onto one another in a manner consistent with the family capacity-building model

(NOTE. r = Correlation between the two parenting measures)

Capacity-Building Family-Centered Practices

- The characteristics and consequences of capacity-building family centered practices have been a focus of my research and practice for more than 25 years

- This research and practice has helped identify the conditions under which participatory parenting and family experiences and opportunities are most likely to have competency-enhancing effects

- The overall pattern of results show that family-centered help giving practices influence parent, family, and child outcomes mediated by self-efficacy beliefs

Types of Capacity-Building Family-Centered Practices

Research conducted by myself and my colleagues has consistently found that there are two clearly discernable subsets of family-centered practices that "fall into" distinct categories of practice:

- Relational Practices

- Participatory Practices

Relational Practices

Relational practices include behaviors typically associated with effective help giving (active listening, compassion, empathy, etc.) and positive staff attributions about program participant capabilities

- These kinds of practices are typically described in terms of behaviors that strengthen program participant and practitioner interpersonal relationships (mutual trust, collaboration, etc.)

- Relational practices also include help giver beliefs about existing family member strengths and their capacity to become more competent as well as practitioner respect for personal and cultural beliefs and values

Participatory Practices

Participatory practices include behaviors that involve program participant choice and decision making, and which meaningfully involve participants in actively procuring or obtaining desired resources or supports for achieving desired life goals

- These kinds of practices strengthen existing competencies and provide opportunities for learning new capabilities by engaging family members in informed decision making and acting on their choices

- Participatory practices also include help giver responsiveness to a family's situation and changing life circumstances, and help giver flexibility to these situations and circumstances

Meta-Analysis of Family-Centered Help-giving Practices Research

Family-Centered Practices

  Relational and participatory family-centered practices measured by 12 different family-centered practices scales

Studies

  47 studies conducted in 7 countries (N=11,187 study participants)

Outcomes

  Program helpfulness, self-efficacy beliefs, social support, child behavior functioning, parent and family well-being, and parenting competence and confidence

Measure of Effect Size

  Correlation coefficient for the relationship between relational and participatory practices and the study outcomes. The average weighted correlations for all studies combined were used as the best estimate of the size of effect between measures

  Dunst, C.J., Trivette, C.M., & Hamby, D.W. (2007). Meta-analysis of family-centred help giving practices research. *Mental Retardation and Developmental Disabilities Research Reviews*, 13, 370-378.

  Dunst, C. J., Trivette, C. M. & Hamby, D. W. (2008). *Research synthesis and meta-analysis of studies of family-centered practices* (Winterberry Monograph Series). Asheville, NC: Winterberry Press.

Relationships Among Family-Centered Help Giving Practices, Self-Efficacy Beliefs and Program Participant Outcomes

Relational Practices

Participatory Practices

Family-Centered Help Giving

Self-Efficacy Beliefs
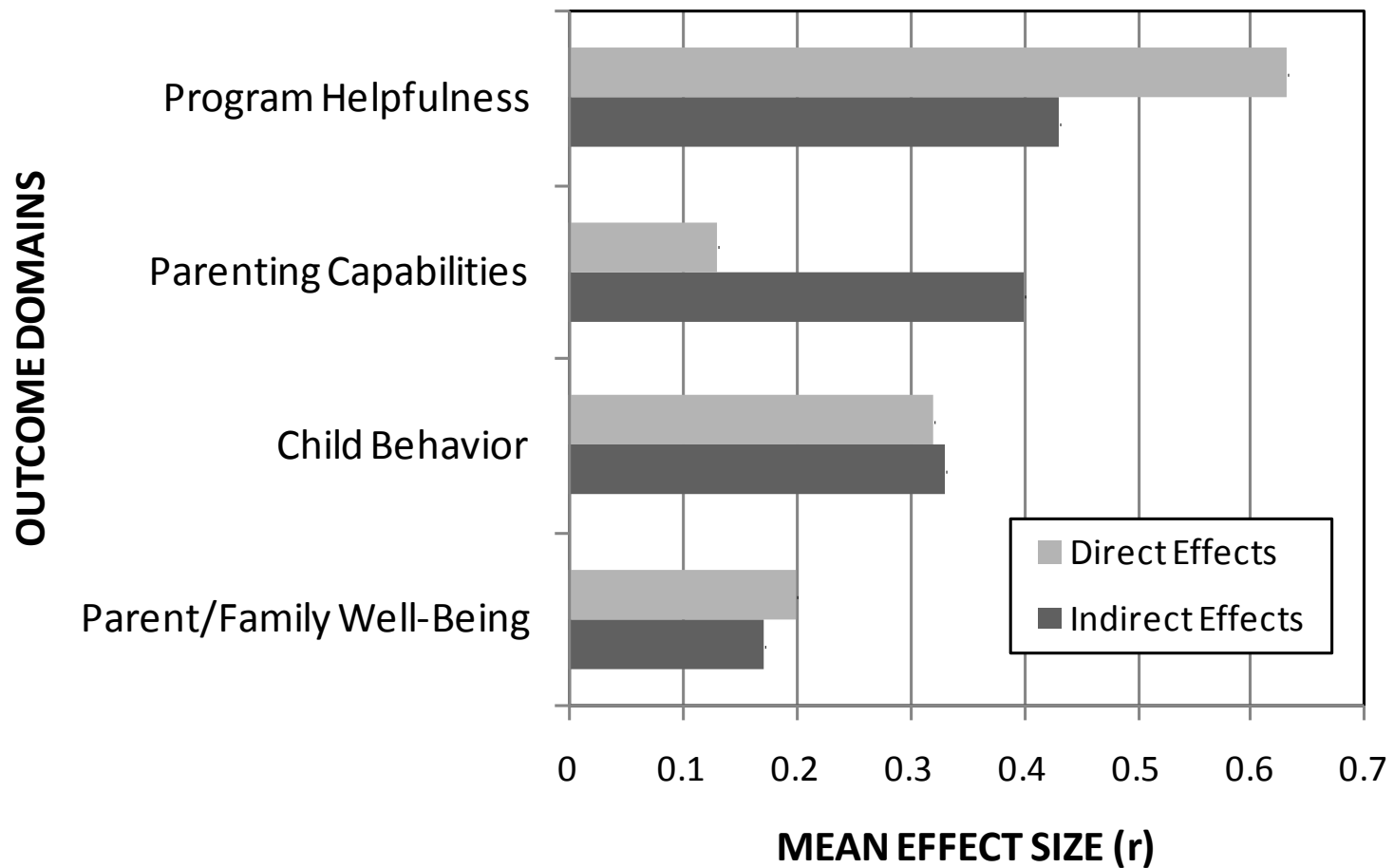
Performance and Outcomes
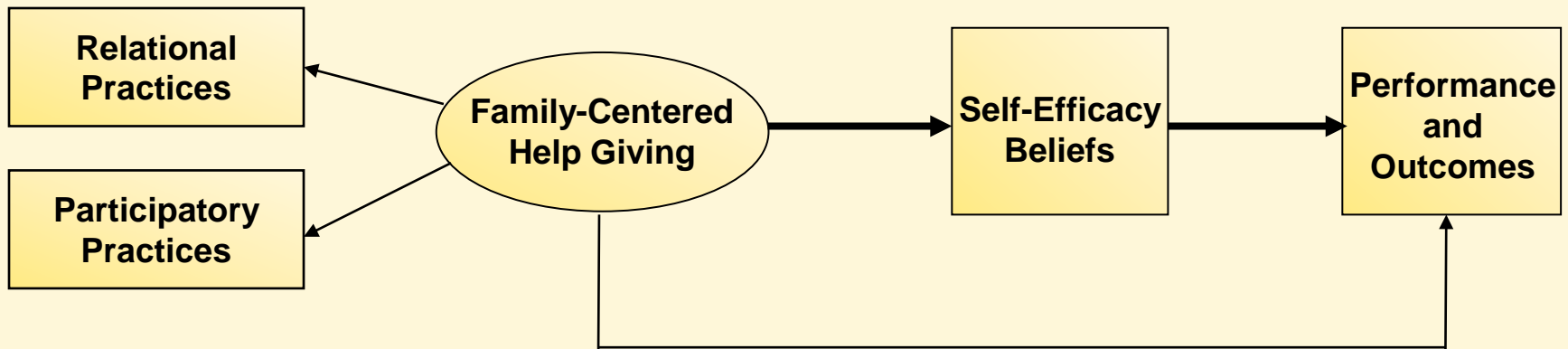
Direct Effects of Family-Centered Practices on Parent, Family, and Child Behavior and Functioning
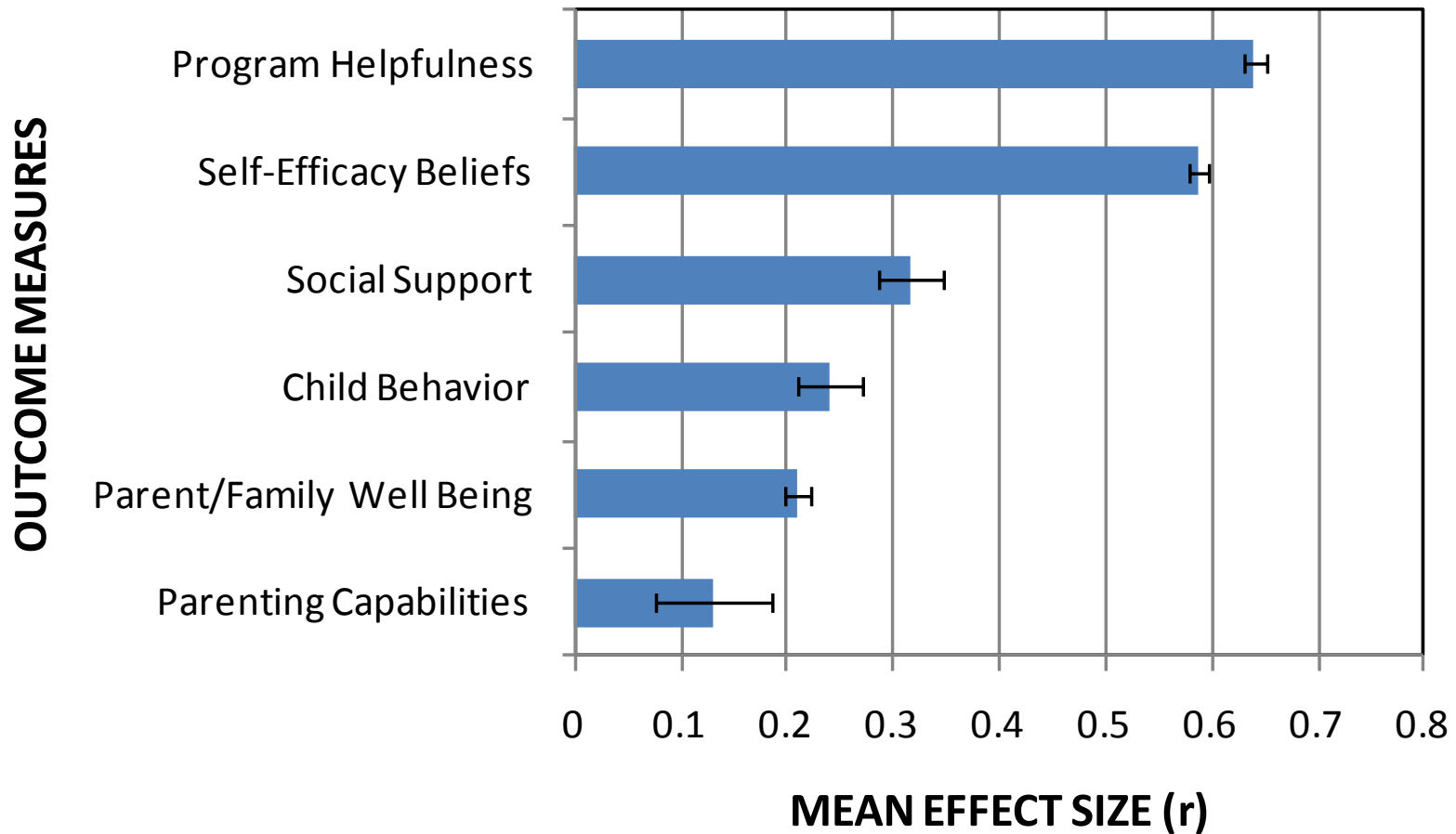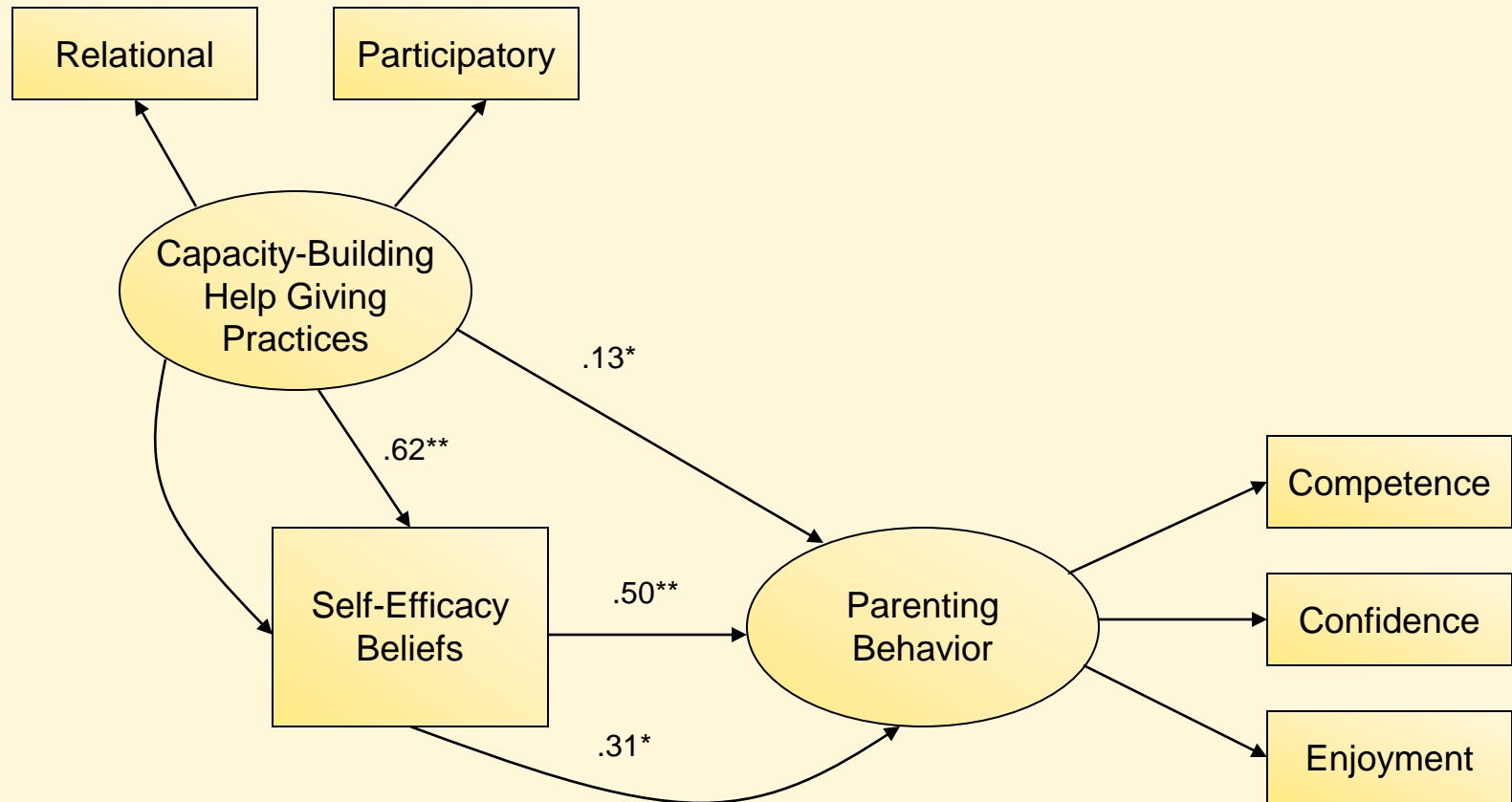
Direct Effects of Self-Efficacy Beliefs on
Parent, Family, and Child Behavior and Functioning
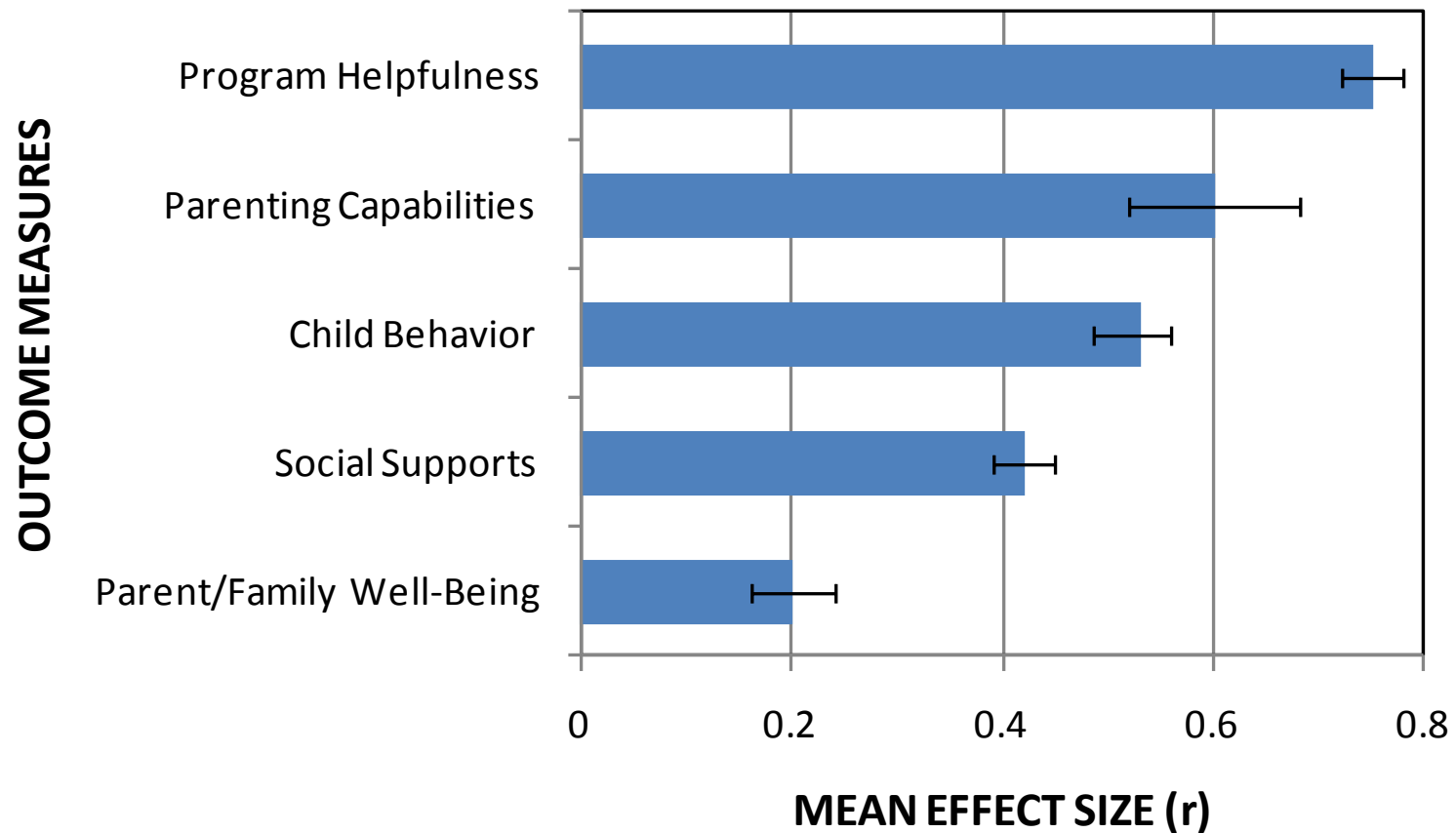
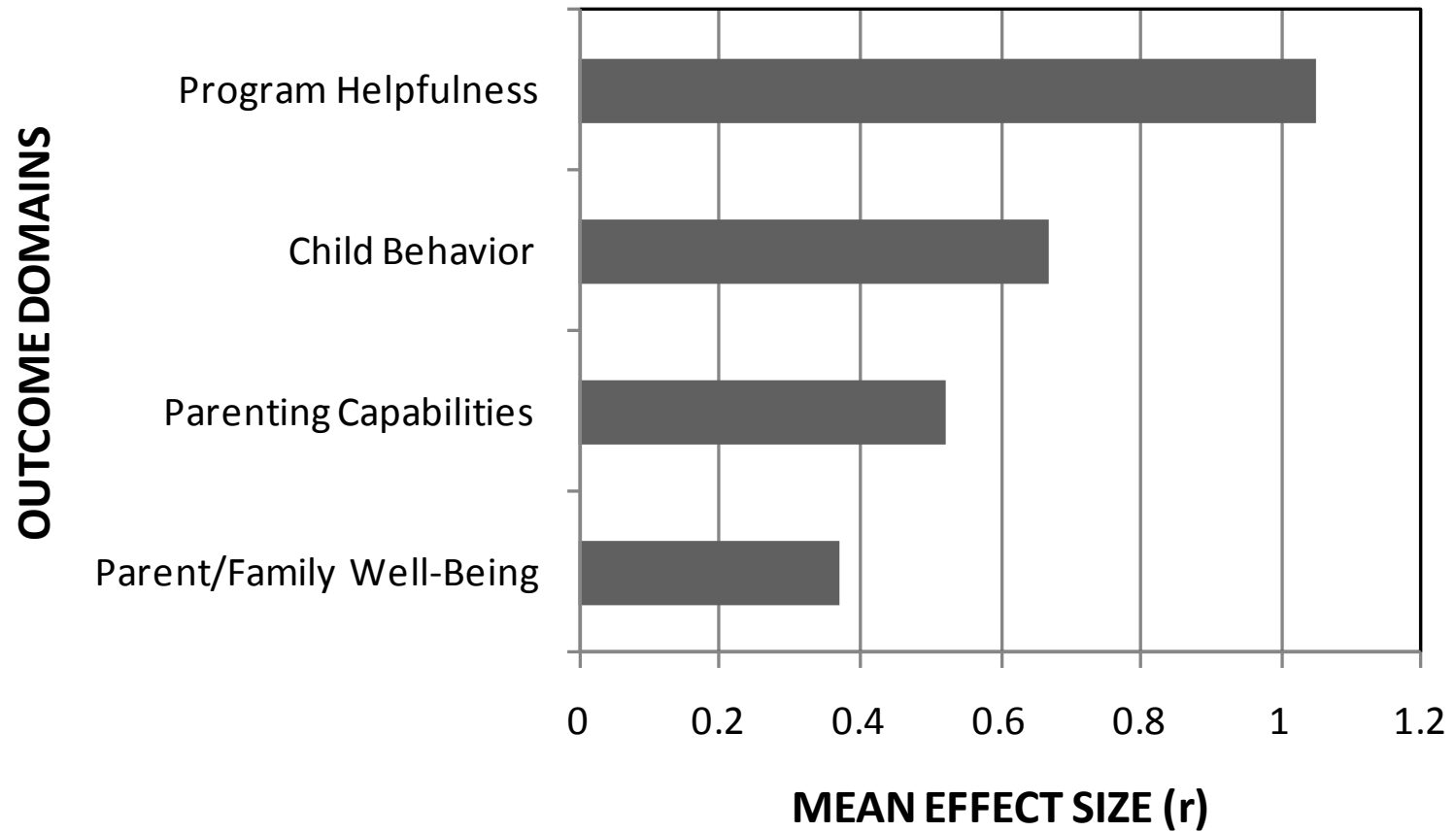# Direct and Indirect Effects of Family-Centered Practices on the Study Outcomes

Model for Evaluating the Direct and Indirect Effect of Capacity-Building Help Giving Practices on Parenting Behavior

(NOTE. Straight lines are direct effects, curved line is indirect effect)

Total Effects (Direct + Indirect) of Family-Centered Practices on the Study Outcomes

Structural Equation Modeling Study

Meta-Analytic Structural Equation Modeling of the Influences of Family-Centered Care on Parent and Child Psychological Health[a]

Studies

15 investigations of family-centered care that included measures of family-centered practices, self-efficacy beliefs, parent psychological health, and child psychological health

Sample

N= 2948 parents and other caregivers

Family-Centre Care Measures

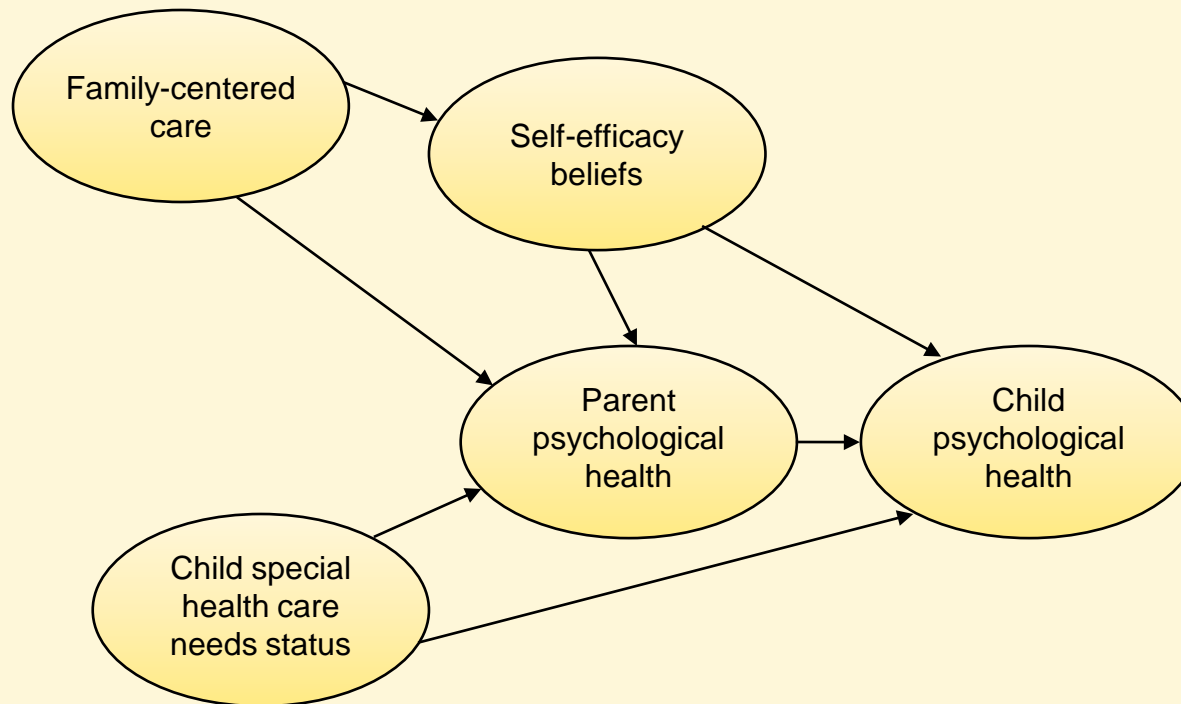Help-Giving Practices Scale, Family-Centered Practices Scale, and Enabling Practices Scale

Hypothesis

Based on contentions in the family-centered care literature, family-centered practices were expected to directly affect parent psychological health and parent health and in turn affect child psychological health. Based on our own research, the relationships between family-centered care and parent and child health were expected to be mediated by self-efficacy beliefs.
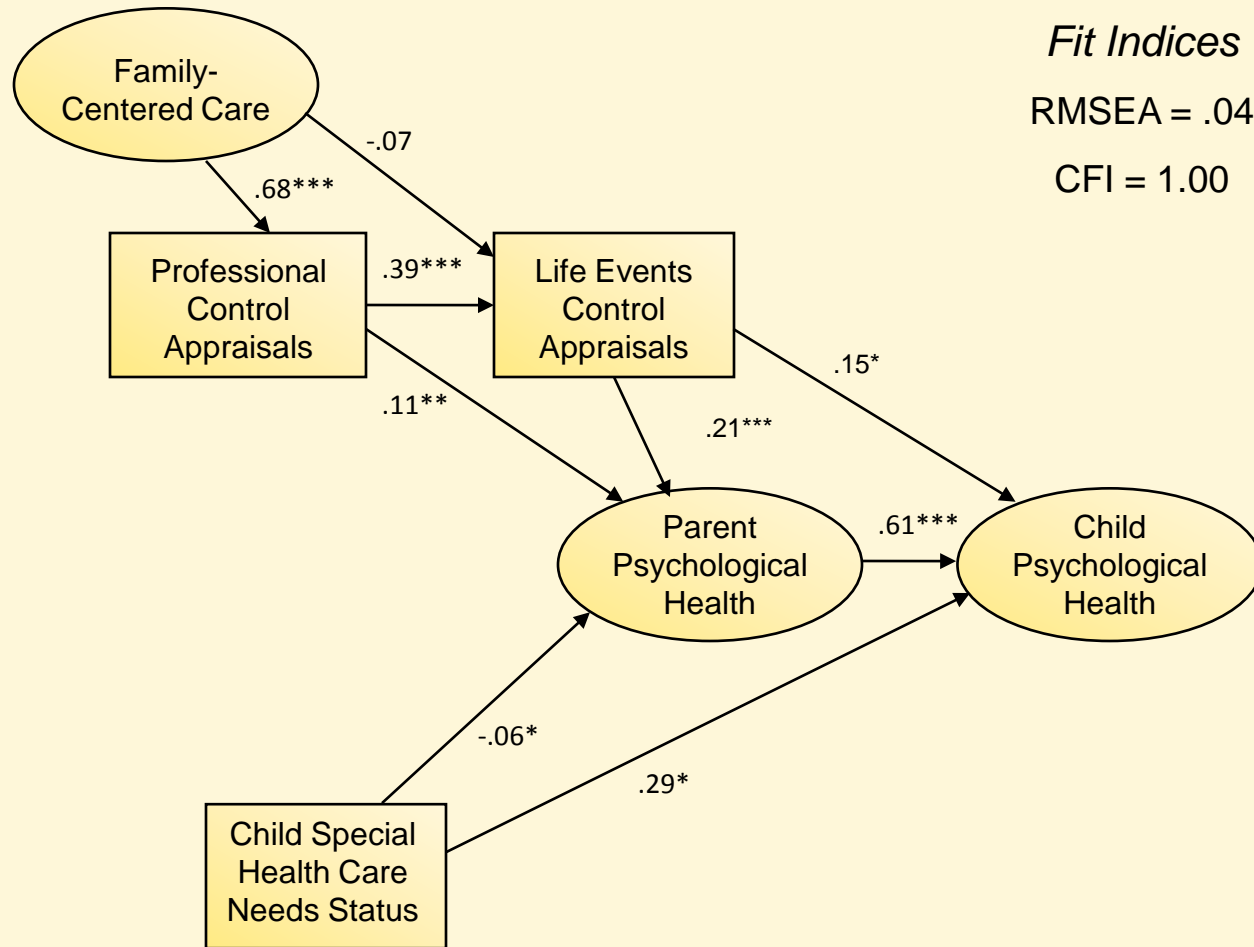

Dunst, C.J., & Trivette, C.M. (2009). Meta-analytic structural equation modeling of the influences of family-centered care on parent and child psychological health. *International Journal of Pediatrics*, 2009, 1-9.

Structural Equation Model for Evaluating the Effects of Family-Centered Care, Self-Efficacy Beliefs, and Child Special Health Care Needs on Parent and Child Psychological Health

Meta-Analytic Structural Equation Modelling Results

Fit Indices

RMSEA = .04

CFI = 1.00

Family-Centered Care

-.07

.68***

Professional Control Appraisals

.39***

Life Events Control Appraisals

.15*

.11**

.21***

Parent Psychological Health

.61***

Child Psychological Health

-.06*

.29*

Child Special Health Care Needs Status

. *p < .01, **p < .001, ***p < .0001.

Conclusions

- The ways in which early childhood practitioners work and interact with families matters if those interactions will have capacity-building characteristics and consequences

- Experiences and opportunities that strengthen both parenting knowledge and skills, and promote a positive sense of parenting competence and confidence, are more likely to have capacity-building consequences

- Findings from the study that specifically focused on the use of capacity-building practices to promote parents' use of interest-based child learning opportunities yielded results consistent with the family capacity-building model

- Results from meta-analyses of family-centered help giving practices provide additional support for the key elements of the capacity-building model

PowerPoint presentation available at

www.puckett.org