



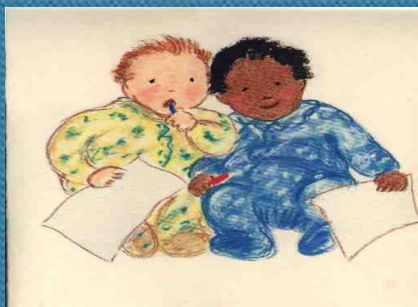
**SHORT AND LONG TERM EFFECTS
OF DAY CARE:
RESULTS OF THE LARGE-SCALE
AMERICAN STUDY**

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NICHD Study of Early Child Care and Youth Development



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Description of Sample



- 1,364 children enrolled at one month of age
- 1,103 children still in the study at age 7
- 1,077 children still in the study at age 12
- 900+ still in study at age 15



Data Collection Schedule

- Major early childhood assessments were conducted at 1, 6, 15, 24, 36, 54 months, kindergarten, 1st/3rd/5th/6th grades, age 15 years
- Intervening phone contacts were made every 3 to 6 months with the families

Schedule of Assessments

Child Age (in months)

Assessment Setting	1	6	15	24	36	54	K	G1	Gr2		
Home	X	X	X	X	X	X		X			
Child Care		X	X	X	X	X					
School							X	X	X		
Laboratory			X	X	X	X		X			
Phone	X	X	XXX	XX	XXX	XXX	XXX	X	XX	XX	6 X



CONCERN FOR SELECTION

Demographics

- Quality of Home Experience
- Parent Characteristics
- Parent-Child Behavior





MOVE BEYOND THE SOCIAL ADDRESS OF “CHILD CARE”

- **QUANTITY OF CARE**

Avg. hours/week in any care 3-54 mos.

- **TYPE OF CARE**

% of 17 measurement epochs from 3-54 mos. in center care

- **QUALITY OF CARE**

Avg. across observations at 6/15/24/36/54 mos.





Effects of Early Child Care: The Mother-Child Relationship



Infant-Mother Attachment Security (15/36 months)

Insecure attachment increased when low levels of sensitive mothering (at home coupled with):

- a. More than 1 arrangement across first 15 months, or
- b. Low quality care, or
- c. More than 10 hours of care per week (only this result replicated when attachment re-measured at 36 months)

Conclusion: Dual risk



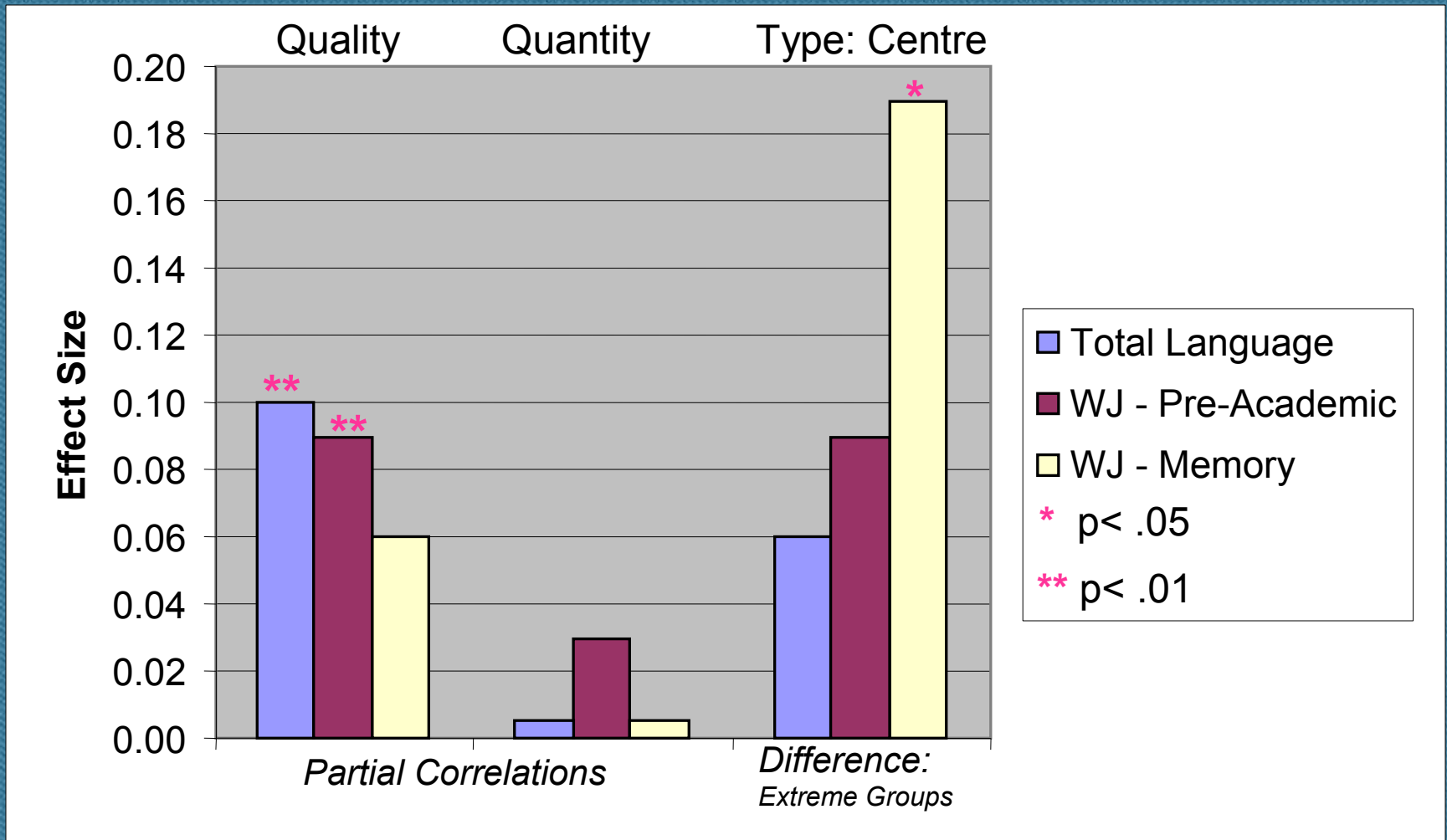
Effects on Mother-Infant Interaction (6 months to 1st grade)

- a. ***More time in care*** across first two and three years predicted less sensitive mothering at 6, 15, 24 and 36 months and less harmonious mother-child interaction patterns. And more time in care across the first 54 months predicted less sensitive mothering through first grade (roughly age 6), but only for white children.
- b. ***Lower quality of care*** predicted less sensitive mothering through 36 months, but thereafter this held only when children received limited amounts of care.

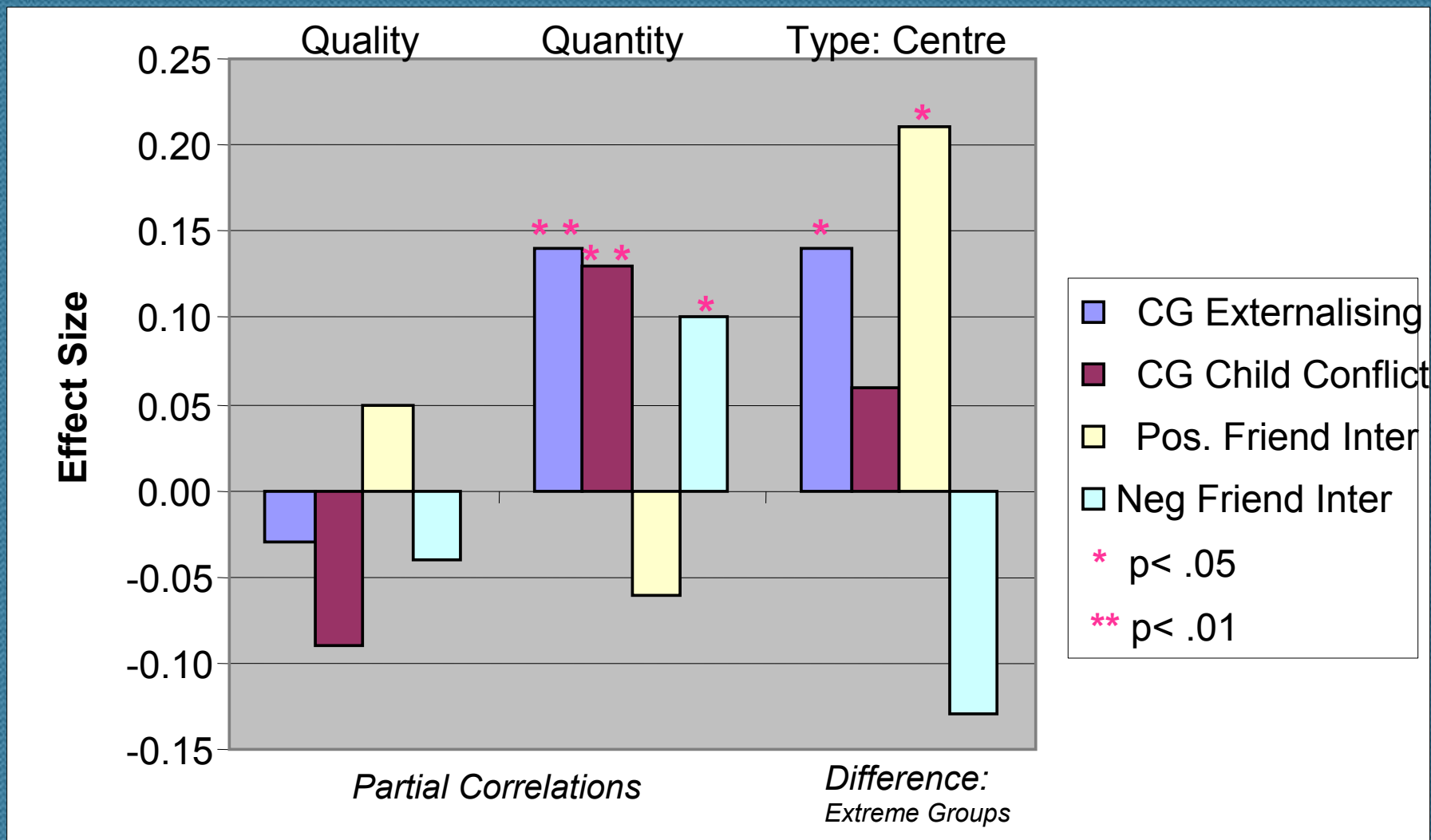


Predicting Development Outcomes at 54-months After Controlling for Multiple Background Factors

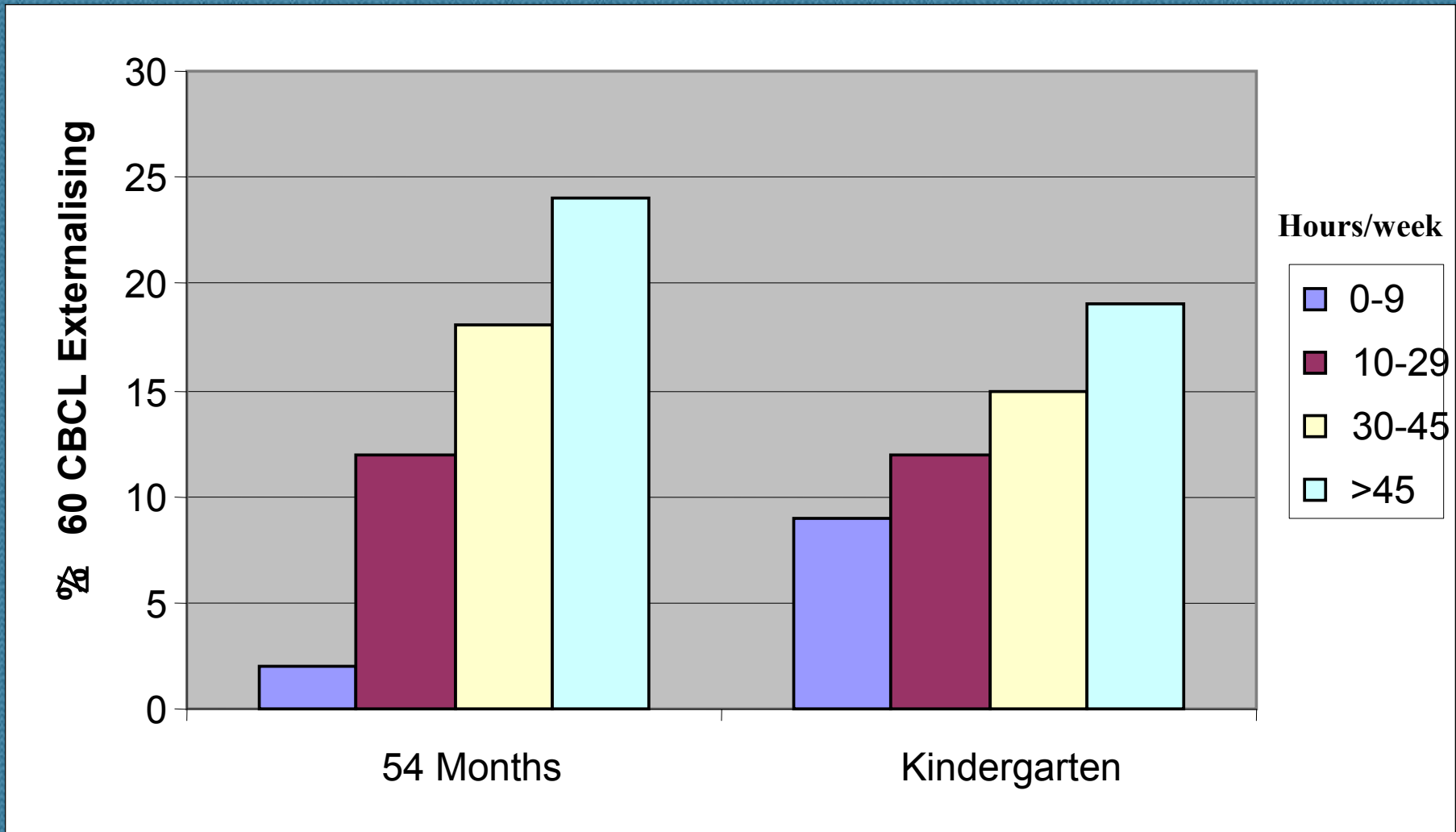
Effects of Child Care features on 54-month Cognitive Development



Effects of Child Care features on 54-month Social Development



Proportion of (Adjusted) Caregiver/Teacher-Rated Problem Behavior ≥ 60 by Amount of Care





Perhaps Just Independence/Assertiveness

CBCL Aggression Subscale Items On Which Children with Low and High Levels of Child Care Differed at 54 Months and in Kindergarten

<u>ASSERTIVENESS</u>	<u>54 MONTHS</u>	<u>Kindergarten</u>
Bragging/Boasting		X
Demands Lots of Attention	X	X
Argues A Lot		X
Easily Jealous	X	X
Showing Off/Clowning		X
Talks too much		X
Teases A Lot	X	X
Demands Must Be Met Immediately	X	X
Screams A Lot	X	
Stubborn, sullen, irritable	X	



Perhaps Just Independence/Assertiveness

DISOBEDIENCE/DEFIANCE

	<u>54 MONTHS</u>	<u>Kindergarten</u>
Talks out of turn		X
Disobedient at school	X	X
Defiant, talks back to staff	X	X
Disturbs other pupils	X	X
Disrupts class discipline		X

AGGRESSION

Gets into many fights	X	X
Cruelty, bullying-meanness	X	X
Physically attacks others	X	X
Explosive behavior	X	X
Destroys own things	X	



SUMMARY

Hi Quality Care predicted better cognitive-linguistic functioning, but not social development, with limited links to the developing mother-child relationship.

Hi Quantity Care predicted greater likelihood of insecure attachment if maternal sensitivity was low, less harmonious mother-child interactions and more externalising behavior problems, but quantity of care was not related to cognitive-linguistic functioning.

Extensive Centre Care predicted enhanced memory *and also* increased levels of externalizing problems.

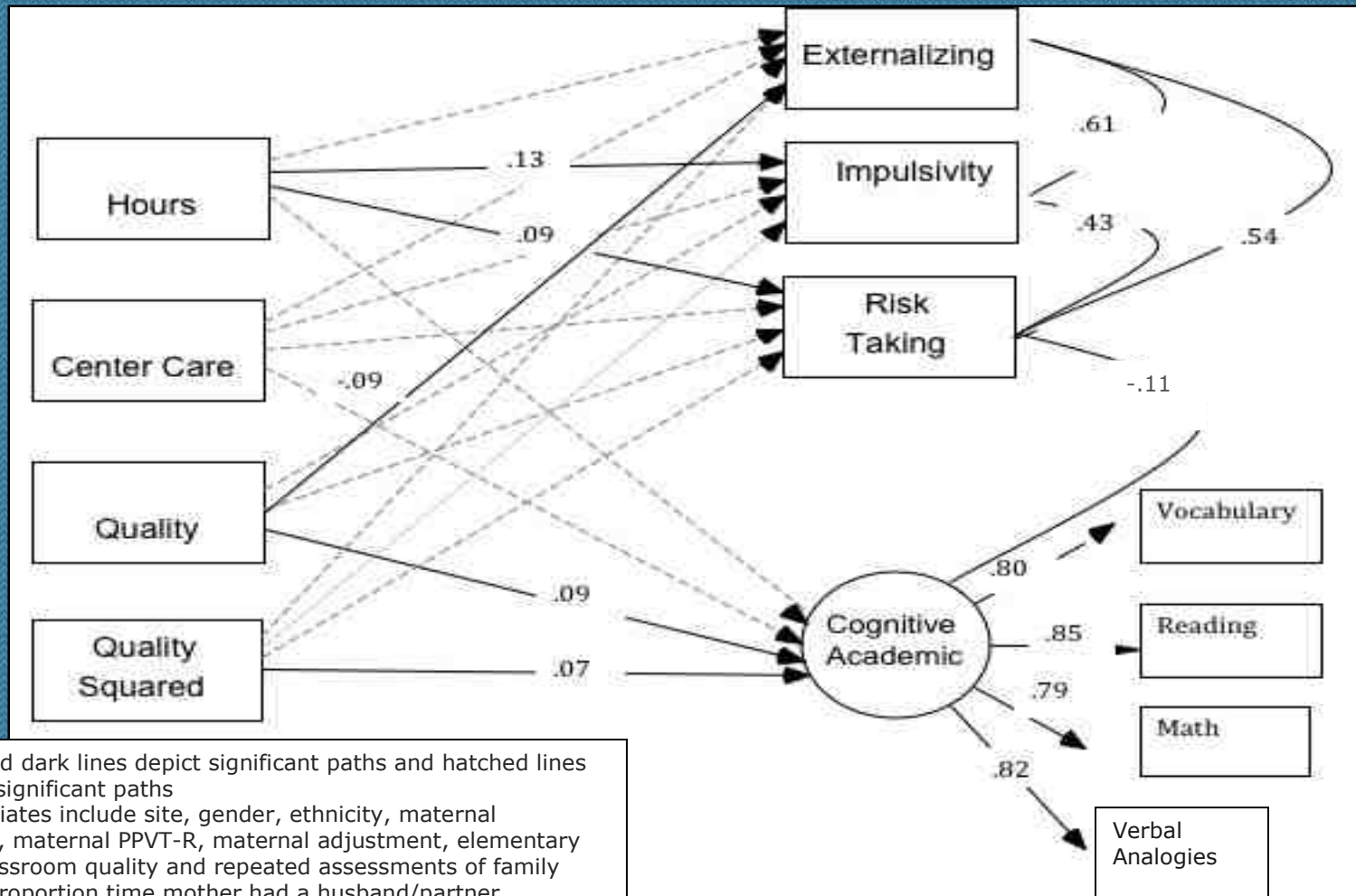


**LONG-TERM Effects
of
Early Child Care
in the NICHD Study:
AGE 15**

Adolescent Outcomes

- Cognitive-Academic Achievement
Woodcock-Johnson (Picture Vocabulary, Verbal Analogies, Passage Comprehension, Applied Problems)
- Risk Taking – 36-items **youth** report
- Impulsivity – 8-items **youth** report
- Externalizing – 30-items **youth** report

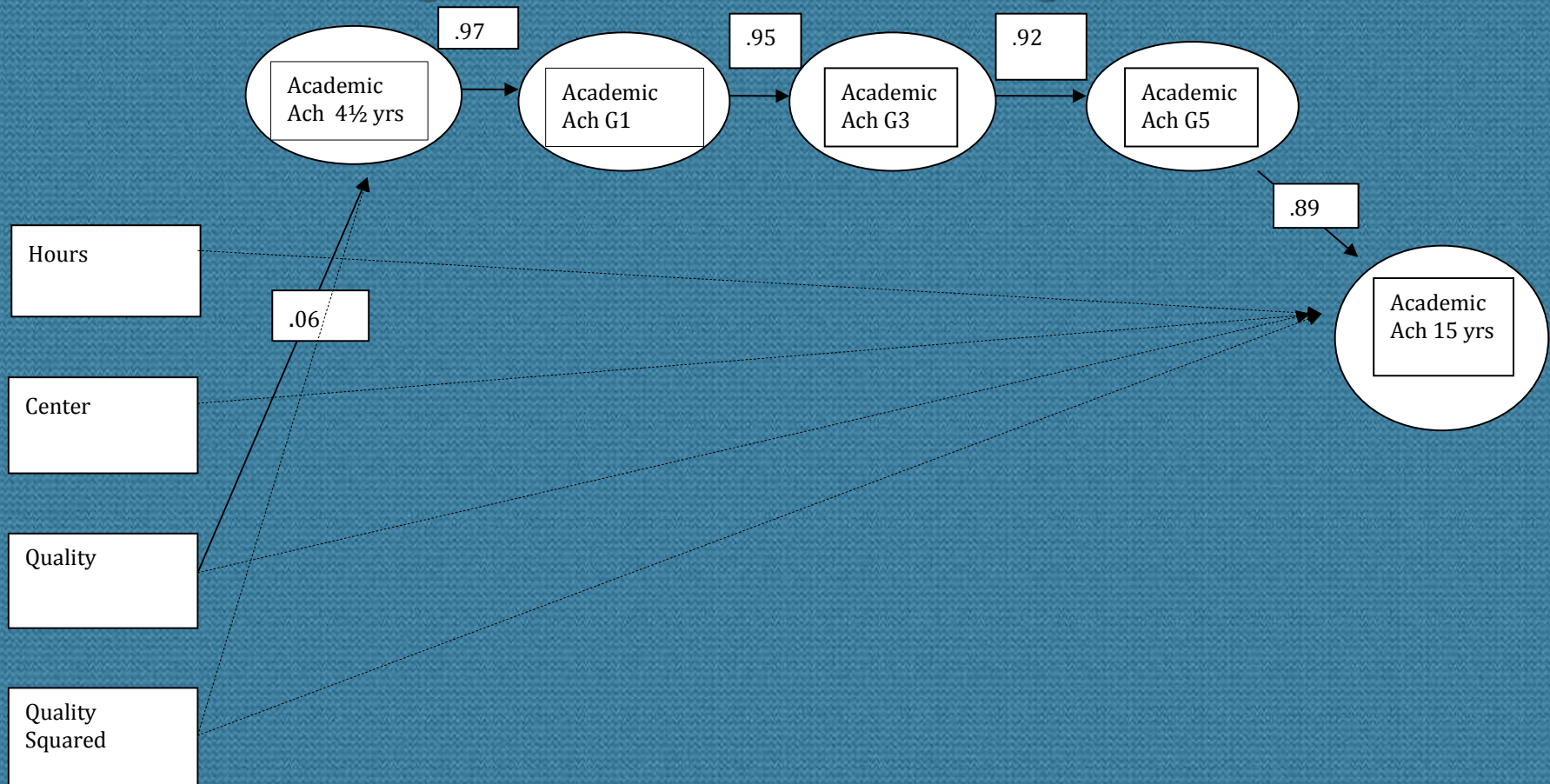
Standardized Path Coefficients in SEM Relating Child Care Experiences to 15-Year-Outcomes



Note: Solid dark lines depict significant paths and hatched lines show nonsignificant paths

Covariates include site, gender, ethnicity, maternal education, maternal PPVT-R, maternal adjustment, elementary school classroom quality and repeated assessments of family income, proportion time mother had a husband/partner, maternal depressive symptoms, and parenting quality.

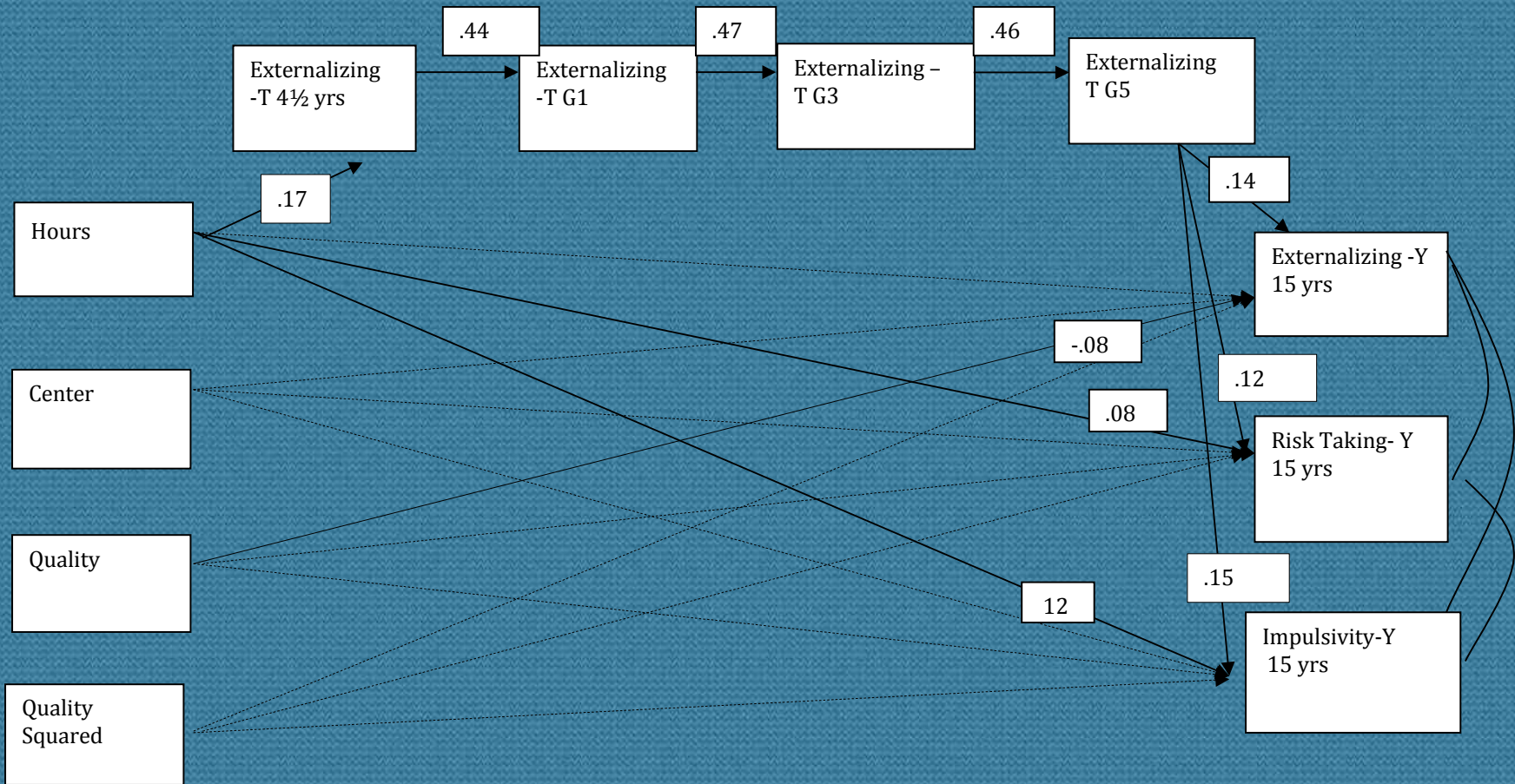
Pathway SEM Testing Prior Academic-Cognitive Achievement as a Mediator of the Link Between Child Care Quality and Academic-Cognitive Achievement at Age 15



Note: Solid dark lines depict significant paths and hatched lines show nonsignificant paths

Covariates include site, gender, ethnicity, maternal education, maternal psychological adjustment, maternal PPVT-R, elementary school classroom quality, and repeated assessments of family income, proportion time mother had a husband/partner, maternal depressive symptoms, and parenting.

Pathway SEM Testing Teacher Ratings of Externalizing at Early Ages as a Mediator of the Link Between Child Care Hours and Quality and Problem Behaviors at Age 15



Note: Solid dark lines depict significant paths and hatched lines show nonsignificant paths
Covariates include site, gender, ethnicity, maternal education, maternal PPVT-R, maternal psychological adjustment, elementary school classroom quality and repeated assessments of family income, proportion time mother had a husband/partner, maternal depressive symptoms, and parenting quality.



**PUTTING THE
NICHD-STUDY
FINDINGS
IN CONTEXT**



**FAMILY FACTORS AND
PROCESSES WERE
MORE CONSISTENT
AND STRONGER PREDICTORS
OF VIRTUALLY
ALL DEVELOPMENTAL
OUTCOMES WHENEVER THESE WERE
MEASURED**



**DETECTED EFFECTS OF
CHILD CARE WERE
MODEST, IF NOT SMALL**



**WHAT IS MORE
IMPORTANT?**

A LARGE EFFECT THAT IMPACTS FEW

OR

A SMALL EFFECT THAT IMPACTS MANY?



And What About Cumulative Effects?

What happens when a classroom, school, neighbourhood and even society has many children--and eventually adolescents and adults--who have spent lots of time in group-based care for many hours, months and years, especially in centres of limited quality?

Are their synergistic or ripple effects?



Child-Care, Classroom Composition and Children's Functioning in Kindergarten

Julia Dmitrieva, Laurence Steinberg & Jay Belsky

Psychological Science, 2008



EARLY CHILDHOOD LONGITUDINAL STUDY

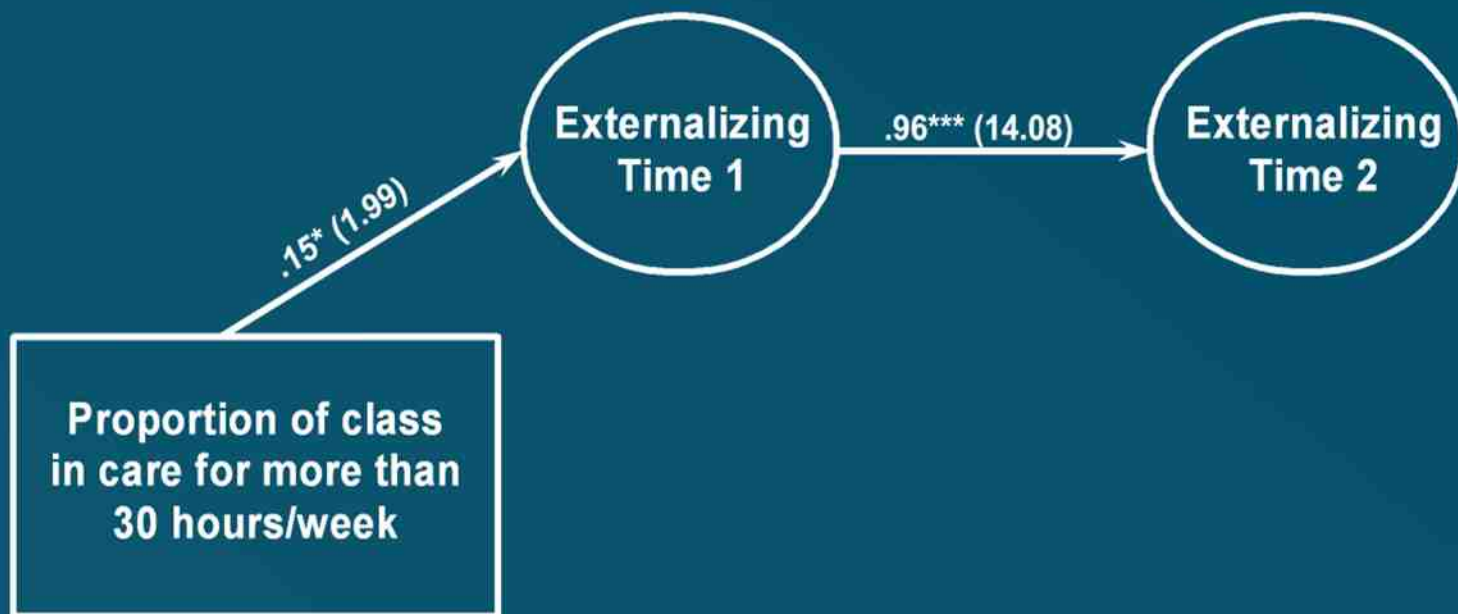
3,440 Children enrolled in

282 Kindergartens classrooms

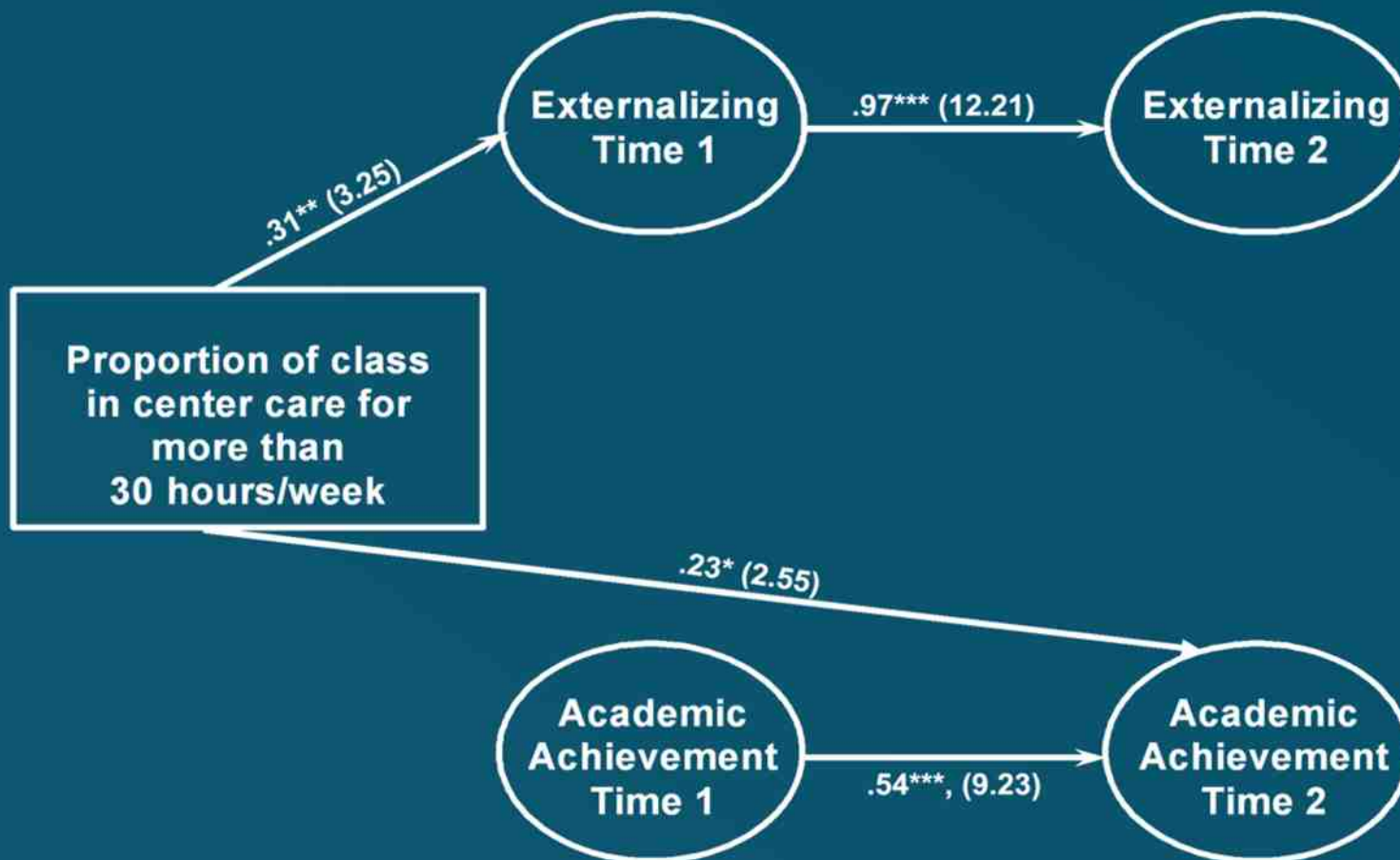
Measurements of externalizing problems (teacher report) and achievement (teacher report + testing) measured in fall and spring of academic year.

After accounting for demographic covariates and effects of individual child-care histories on each child's functioning in multi-level models, evaluated classroom-composition effects over and above these.

Classroom-Level Effects



Classroom-Level Effects





UNKNOWNNS IN THE CHILD CARE EQUATION 2011

Through what developmental mechanisms does lots of time spent in child care and perhaps especially in centers come to be related to somewhat elevated levels of aggression and disobedience?

It is not via attachment insecurity, as I hypothesized in 1986, nor even patterns of mother-child interaction.

Nor is it a function of low quality of child care as so many have contended for so long—and many even still do.



UNKNOWNNS IN THE CHILD CARE EQUATION--2011

Through what mechanisms do detected classroom-composition effects operate?

Is it via some kind of behavioral contagion process—keeping up with the Joneses?

Does it involve how the teacher spends her time—managing vs. teaching?

Are child-care related classroom-composition effects operative beyond the kindergarten year—throughout the primary school years (or even beyond)?



UNKNOWNNS IN THE CHILD CARE EQUATION--2007

In light of the fact that

- children are nested in classrooms
- and classrooms are nested in grade levels
- and grade levels are nested in schools
- and schools are nested in communities

Might there be equally small—or larger—child care effects operative at some or even all these levels of ecological nesting? If so, is there a “tipping point”?