

Catherine S. Tamis-LeMonda, NYU
Natasha E. Cabrera, UMD
Karen E. McFadden, NYU
Jacqueline E. Shannon, CUNY

Today's Talk

• Multiple aspects of father involvement in children's first years of life in relation to children's language and cognitive skills

Today's Talk

• Multiple aspects of father involvement in children's first years of life in relation to children's language and cognitive skills



Why language? Why infancy?

Why Language Development?

- Language is a tool that enables children to:
 - share experiences with others
 - participate in cultural routines
 - regulate emotions and behaviors
 - and meet the learning requirements of school

Why Language Development?

- Language is a tool that enables children to:
 - share experiences with others
 - participate in cultural routines
 - regulate emotions and behaviors
 - and meet the learning requirements of school
- Language and cognitive skills develop through social interactions (Vygotsky, Bruner)
 - fathers are a key source of the language children hear (redundant information, unique information)

Critics: Why Infancy?

- Policy and educational concerns target school performance and academic disparities
 - The panacea: Just make schools better!
- Skills from infancy to childhood are unstable and unreliable
 - What difference do these early skills make?
 - Children will surely catch up

Infant Researchers: Here's Why!

- Attachment theory:
 - Infancy is a time when parents establish close relationships with the baby that form the foundation for child well being

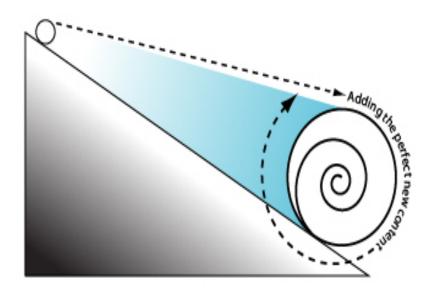
Infant Researchers: Here's Why!

• Skill theory:

- Infancy is when language skills rapidly develop as the building blocks to school success
- Children with strong language skills early on show an advantage in later reading, grammatical development, phonological awareness and academic performance years later.

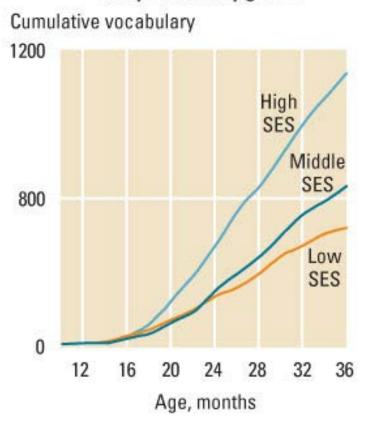
The Snowball Effect

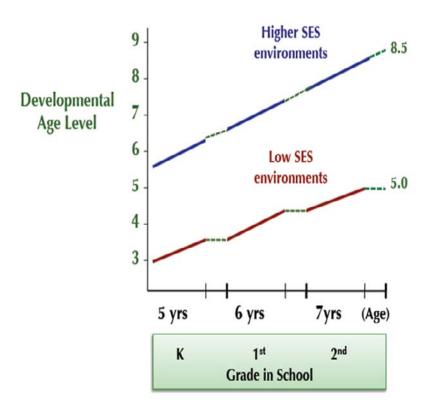




Early Disparities Grow Over Time

Early vocabulary growth





Hart & Risley, 1995

Today's Talk: Research Foci

- RQ1: Which aspects of father involvement are important to children's language and cognitive development?
- RQ2: How and why?

Data Sources





Early Head Start

- 3001 families in randomized experimental-control design
- Mother interviews and videorecorded with children ages 14, 24, 36 mos & Pre-K
- Father interviews and videorecorded with children ages at 24, 36 mos & Pre-K
- Nested study of fathers and mothers of newborns at 1, 3, 6, 14, 24, 36 mos & Pre-K

MetroBaby Project

- 380 families recruited from 3 public hospitals (Mexicans, Dominicans, African American & Chinese)
 - Large immigrant and minority groups in the U.S.; growing populations in NYC and other urban communities
 - Urban poor neighborhoods with high crime rates, language barriers
- Data collection at birth, 1, 6, 14, 24, 36, 52 months, Kindergarten & 1st grade

RQ1: Which aspects of father involvement are important to children's language and cognitive development?

Direct Pathways

- Two clear influences:
 - The quality of father-child interactions (verbal responsiveness, support, use of rich language)
 - Fathers' engagement of children in learning activities

Influence #1: The Quality of the Father-Child Relationship

Father-Toddler Interactions



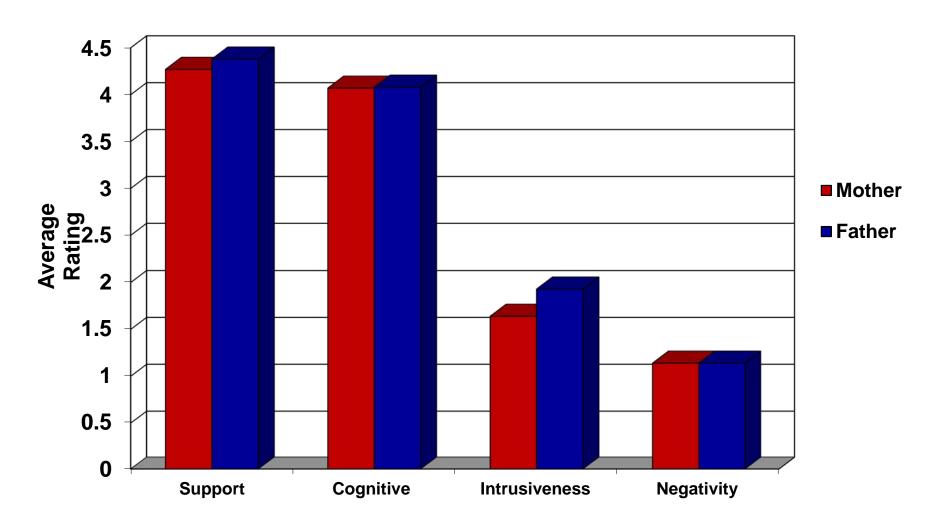
The Quality of Father-Child Interactions

- Global coding (1-7) of fathers' supportiveness (sensitivity, responsiveness, positive regard), intrusiveness, negativity
- Micro-coding of fathers' language use (different word types, different language functions) from transcriptions of f-c interactions
 - "See the ball" (3 word types)
 - "Look there" (directive); "What is that?" (open ended question); "That's a blue ball" (descriptive) (3 functions)

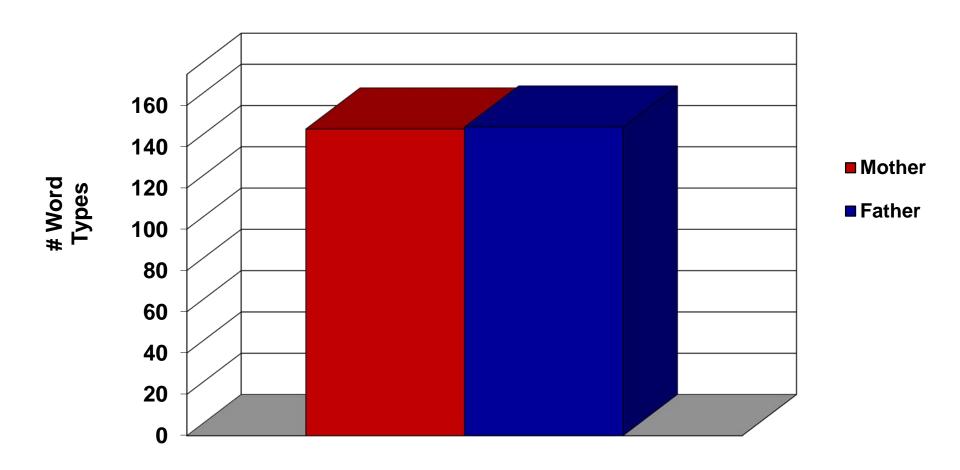
The Quality of Father-Child Interactions

• How does the quality of fathers' interactions compare to those of mothers on global measures and micro measures of language?

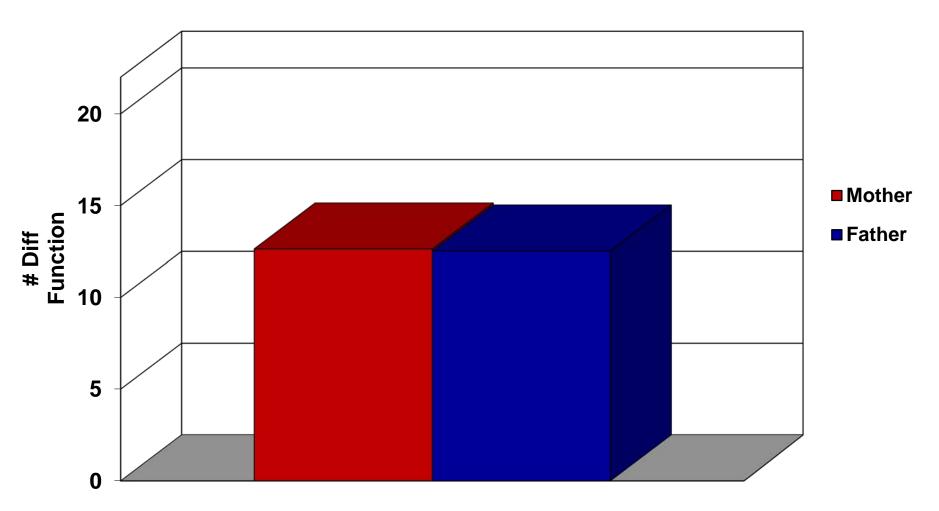
Father and Mother Support and Negativity



Father and Mother # Word Types

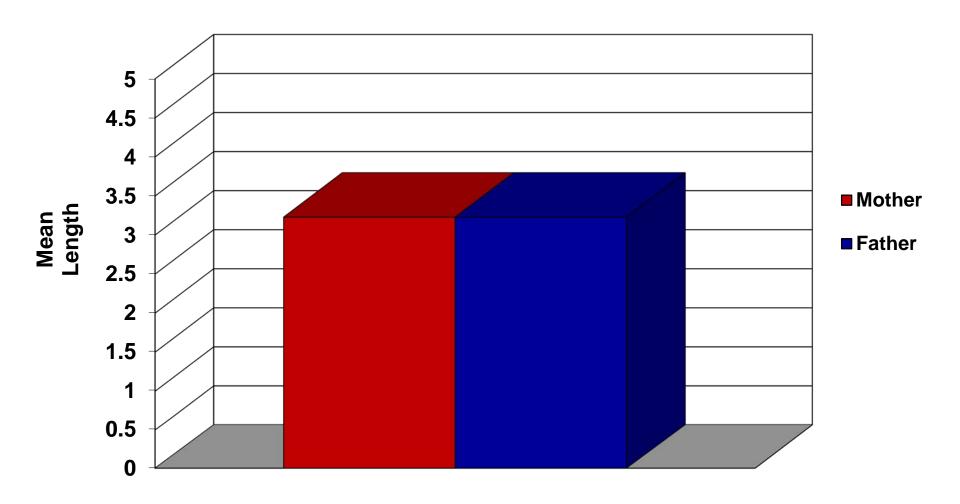


Father and Mother Language Diversity



Tamis-LeMonda, Baumwell, Cristofaro (2012), First Language

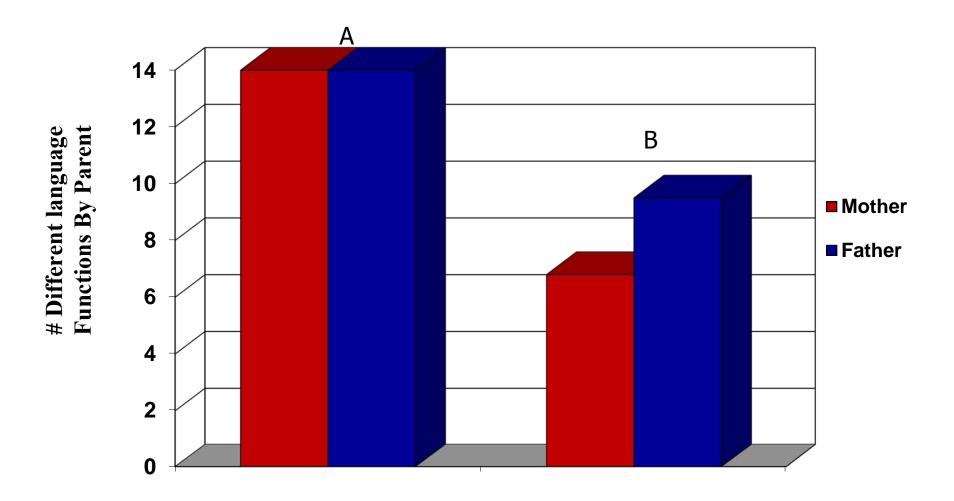
Father and Mother Mean Length Utterances



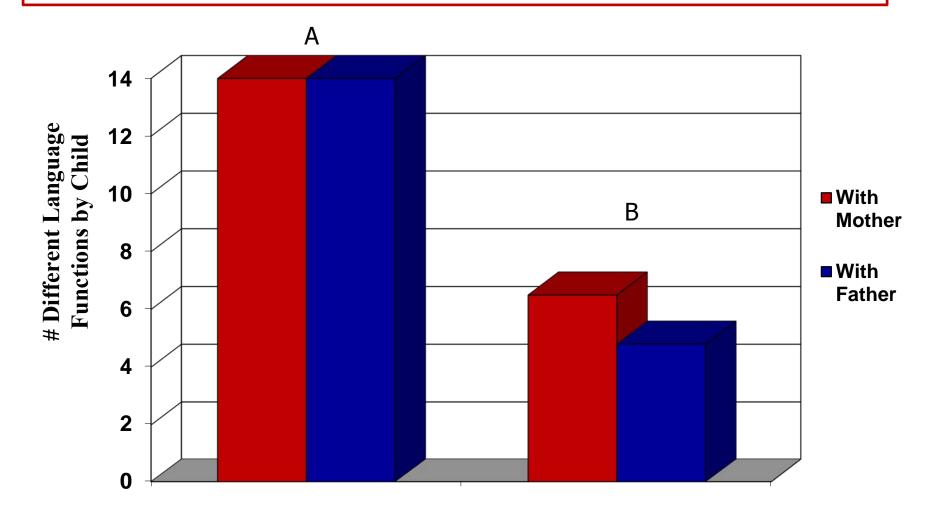
How do Fathers and Mothers of the Same Child Compare in Language?

- Children experience uniform language environments
 - Inter-parent correlations from .40 to .60 on all measures
- The "rich get richer"
 - Assortive mating
 - Or living together makes parents similar
 - Residency moderates mother-father correlation in word types (relation there for resident, not non-resident)

Language Heard by Two Children: Parents' Communicative Diversity



The Language Expressed by Two Children with Mother and with Father



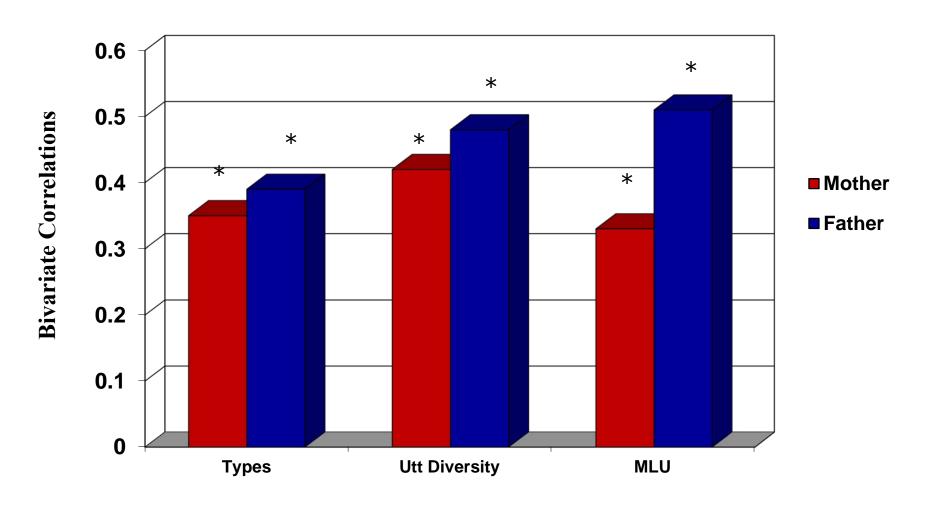
Father Involvement Matters above Mothers' Involvement

Fathers and Mothers at Play with 2- and 3-Year olds

| | 36 MDI | | 36 PPVT | |
|---|--------|--------------------------|---------|--------------------------|
| | Beta | R ² change | Beta | R ² change |
| Mother's Supportive Parenting | .20* | .13*** | .14+ | .10*** |
| Father's Supportive Parenting | .25** | .07*** | .25** | .08*** |
| Significant Demographics (Parental Education, Income) | | .08** | | .10*** |

 $^{^{+}}$ $p < .10. * p \le .05. ** <math>p \le .01. *** p \le .001$

Fathers and Mothers Language: Associations with Children's Language at 2 Years



Father Involvement Matters for School Readiness

Father Involvement and Children's School Readiness

- Participants & Procedures
 - Approximately 1200 resident low-income fathers of young children from a nationally representative sample (ECLS-B)
 - Fathers reported on parenting behaviors when children were 9 months and 2 years of age
 - Children's school readiness at preschool age

Father Involvement and Children's School Readiness

- Which set of fathering behaviors predict children's school readiness skills?
 - Childcare ($\alpha = .86$)
 - Learning Activities ($\alpha = .78$)
 - Outings ($\alpha = .77$)
 - Time with Child ($\alpha = .77$)
 - Financial Provisioning ($\alpha = .79$)

Fathers' Learning Activities and Children's PreKindergarten Skills

| | PPVT | Reading | Math |
|-----------------------------------|-------|---------|-------|
| Financial provisioning | .09** | .12** | .15** |
| Engagement in childcare | .05 | 05 | 07* |
| Engagement in play activities | 06* | .00 | 02 |
| Engagement in learning activities | .11** | .14*** | .08* |

^{*}p < .05, ** p < .01, *** p < .001, controlling for father race/ethnicity and time spent with child

Father Involvement Matters for Academic Skills in Early Adolescence

Fathers' Learning Activities and Children's 5th Grade Academic Skills

- Participants & Procedures
 - Approximately 602 low-income fathers of young children participating in the Early Head Start National Evaluation Study
 - Fathers' participation in learning activities when children 2, 3 years and in pre-school
 - Children assessed on receptive language (PPVT),
 literacy and math skills in 5th grade

Fathers' Learning Activities and Children's 5th Grade Academic Skills

| | PPVT | Reading | Math |
|--|--------|---------|-------|
| Father Engagement in Early Learning Activities | .14*** | .15** | .09* |
| Child Positive Relationship with Biological Father | .16** | .17** | .10 |
| Child Positive Relationship with Father-Figure | .09* | .15*** | .14** |
| R^2 | .04*** | .05*** | .03** |

p < .05, ** p < .01, *** p < .001, controlling for father race/ethnicity and time spent with child

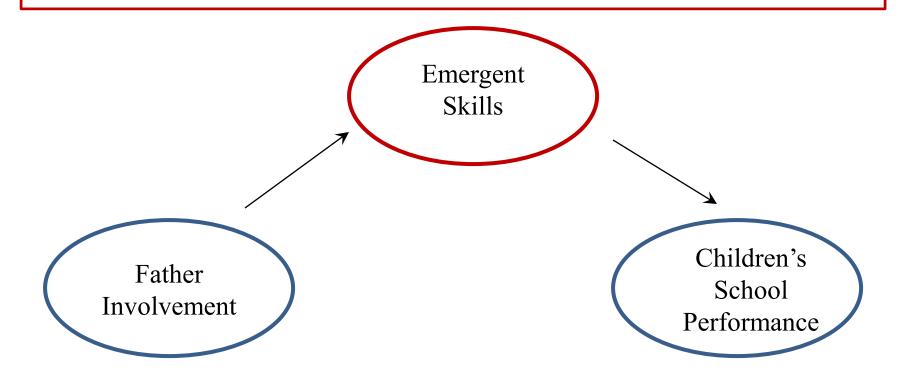
RQ2: Why do these aspects of father involvement matter?

Pathways of Influence

- Skill promotion:
 - Support of early skills in infants and young children, which snowball to later skills



Father Pathways of Influence

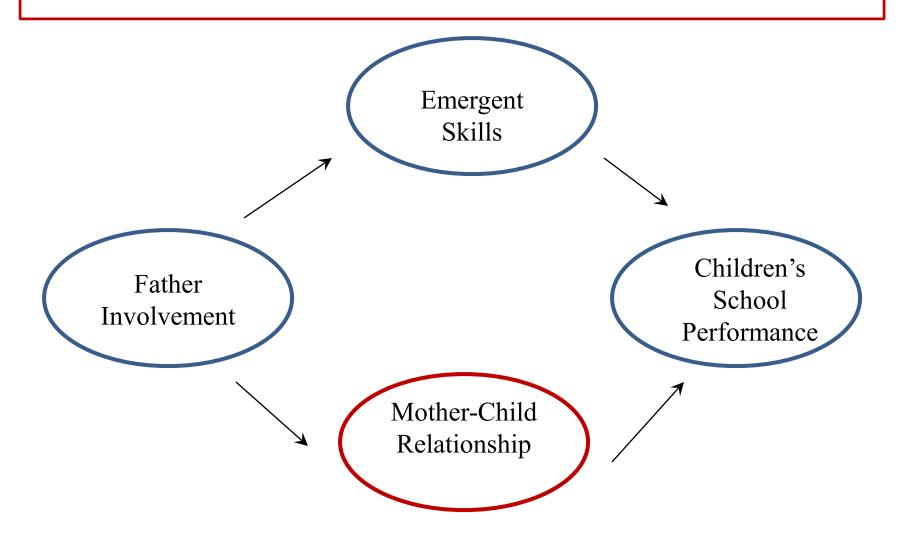


Pathways of Influence

- Family systems:
 - Fathering affects the mother-child relationship,
 which feeds into children's skills

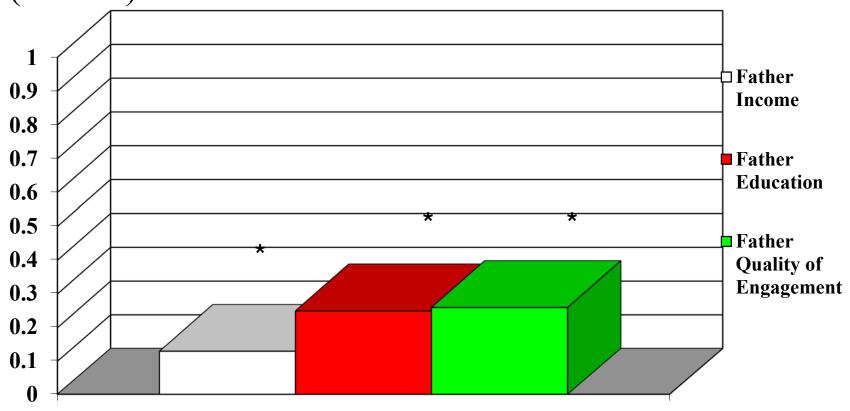


Father Pathways of Influence



Fathers' Influence on Mothers' Sensitivity

• Father supportiveness 2 years to mom 3 years (N=330)



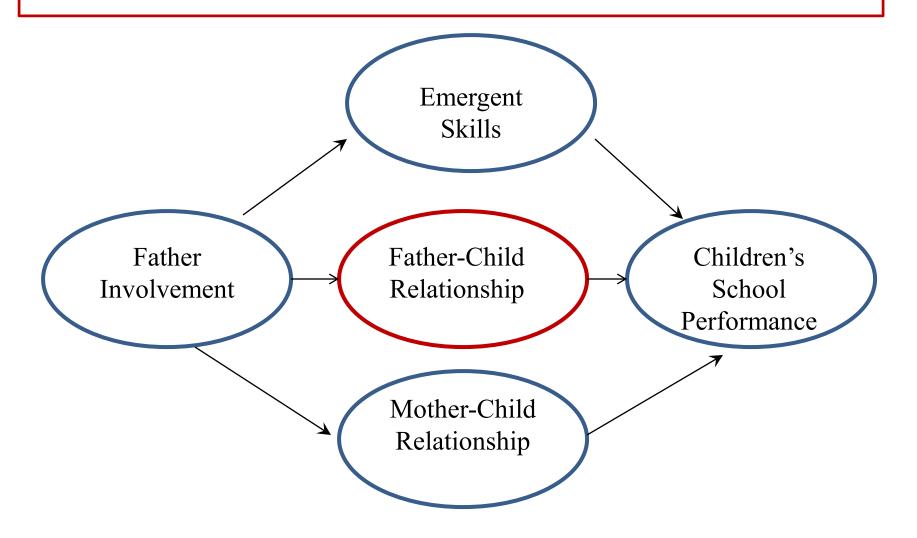
All Influences Significant at p < .05, .01 or .001 levels.

Pathways of Influence

- Cycle of involvement:
 - Early father involvement feeds into continued involvement, which then directly affects children



Father Pathways of Influence



Example of Pathways: Fathers' Prenatal Involvement

Fathers' Prenatal Involvement

- Family system
- Cycles of involvement

Fathers' Prenatal Involvement and Involvement across 5 years of Life

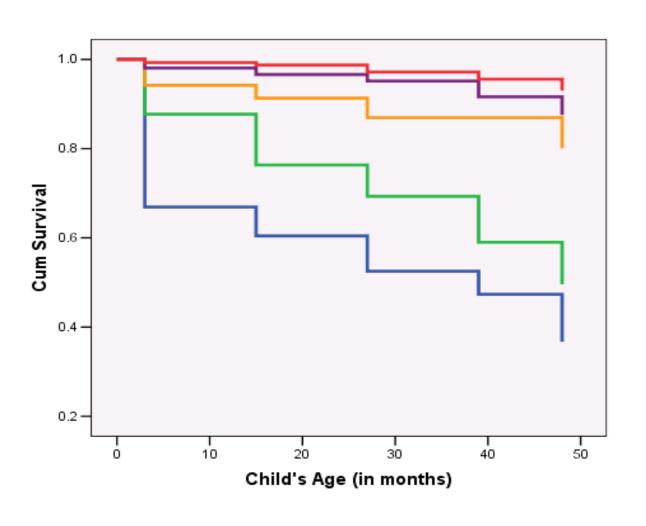
- Does father see child at least a few times per month or more, modeled at successive ages:
 - Birth
 - 1 mo.
 - 14 mos.
 - -24 mos.
 - 36 mos.
 - Pre-K



Shannon, Cabrera, Tamis-LeMonda, & Lamb (2009), *Parenting: Science & Practice*

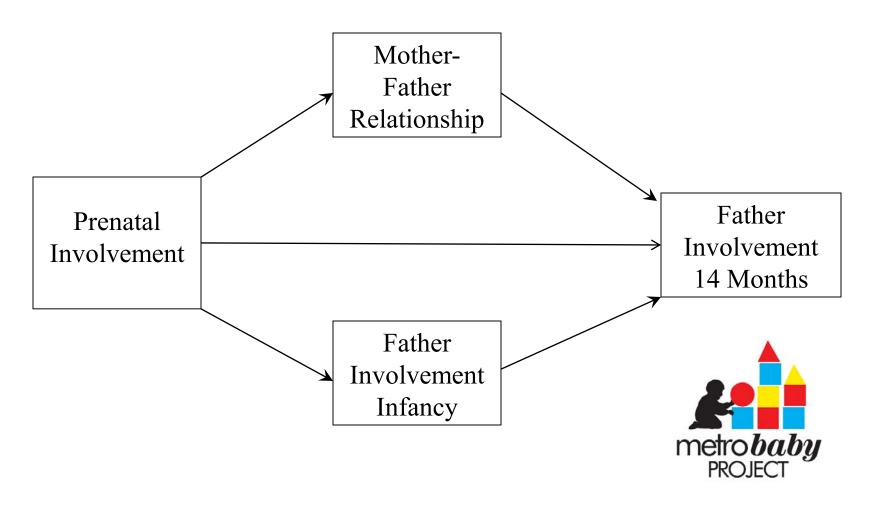
Closer Look at Prenatal Involvement

Survival Function









Tamis-LeMonda, Yoshikawa, Kahana-Kalman, Niwa, . (2008), Sex Roles

- •380 immigrant and low-income families
- •Interviews on father prenatal involvement at birth of baby
- Visiting the hospital
- Visiting the doctor
- Seeing an ultrasound
- Speaking to mother about the pregnancy

- Giving money to buy things for the baby
- Feeling the baby move
- Attending Lamaze or other birth classes
- Listening to baby's heartbeat



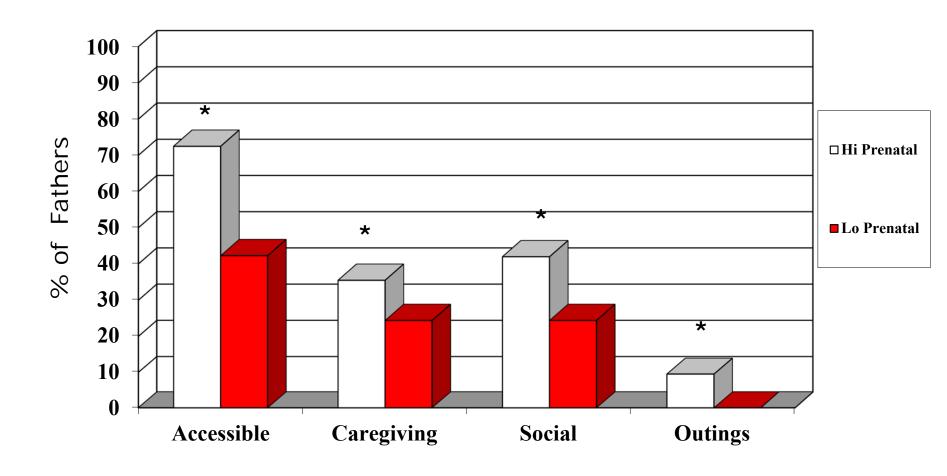
- Father involvement in infancy (mediator)
 - Daily diaries of 24-hour period in the life of the baby at 1 month & 6 months
 - Offered data on fathers' time with infant and activities he engaged in with baby the prior day
 - Survey items asked about fathers' engagement in childcare and play with infants

- •Father involvement at 14 months (outcomes) = time spent engaged in activities with toddler
- Sing songs
- Watch TV
- Watch videos
- Read books
- Tell stories

- Listen to music
- Play games without toys
- Play rough-tumble games
- Build things with child
- Play with ball

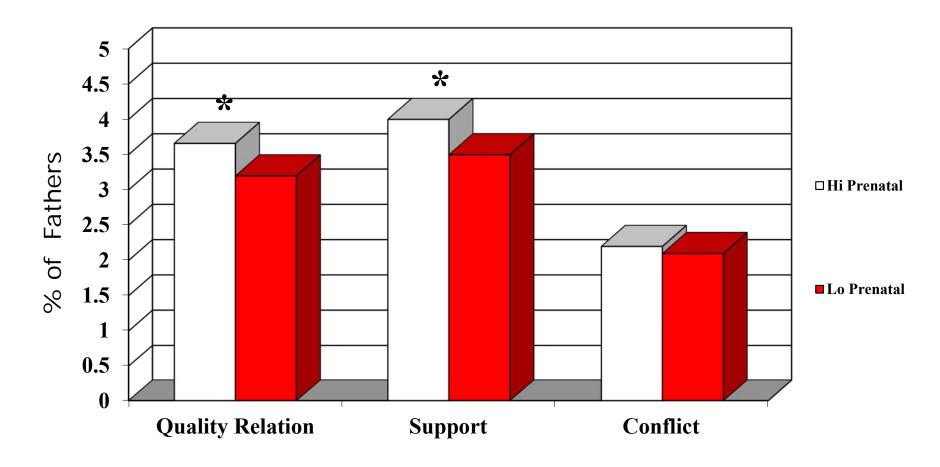


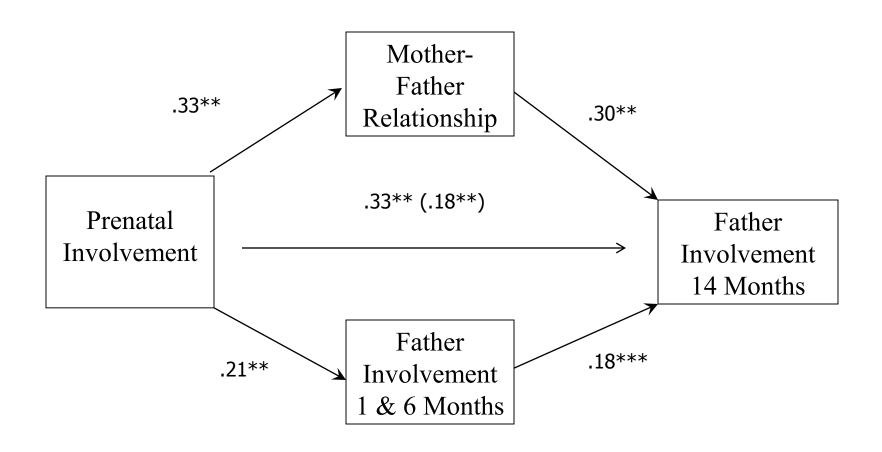
Fathers' Prenatal Involvement and Involvement in Infancy (1 & 6 mo)



N=278, n=200 high involvement; n=78 low involvement based on distribution cut < 6

Father Prenatal Involvement and the M-F Relationship at 1 Month





Prediction to 14-Month Involvement

| | В | SE B | ß | |
|----------------------------|-------------------|------------------|---------|--|
| Father Education | .079 | .116 | .051 | |
| Father Employment | .227 | .158 | .113 | |
| Father Marital Status | .008 | .126 | .005 | |
| Father Residency | .058 | .143 | .035 | |
| Mexican Contrast | 165 | .155 | .105 | |
| Dominican Contrast | 038 | .150 | 024 | |
| Prenatal Involvement | .771 | .342 | .178** | |
| Involvement 1 & 6 Months | .532 | .241 | .184*** | |
| Mother-Father Relationship | .228 | .062 | .303** | |
| | R^2 Total | R^2 Total= .27 | | |
| | F(9, 143) = 5.93, | | | |
| | p = .000 | | | |

^{**}p < .01, ***p < .001, two-tailed.

Conclusions

- Early father-child interactions and engagement in learning activities predict emerging language skills and later academic skills
- Effect sizes for father-child associations are as strong as are mother-to-child associations
- Pathways of influence include promotion of early child skills which snowball over time as well as effects on mother-child interactions

Special Thanks to....

- Administration for Children and Families
- NICHD
- Ford Foundation
- National Science Foundation
- And the fathers and families in our studies



Fathers' Income and Work Continue to Matter for father engagement at 2 and 3 Years and at PreK (Ns = 290; 500)

- Tamis-LeMonda, C. S., Shannon, J. D., Cabrera, N. J., & Lamb, M. E. (2004). "Fathers and Mothers at Play with their 2- and 3-Year-Olds: Contributions to Language and Cognitive Development", *Child Development*.
- Cabrera, N., Shannon, J. D., & Tamis-LeMonda,
 C. S. (under review).



Fathers' Time and Financial Investments

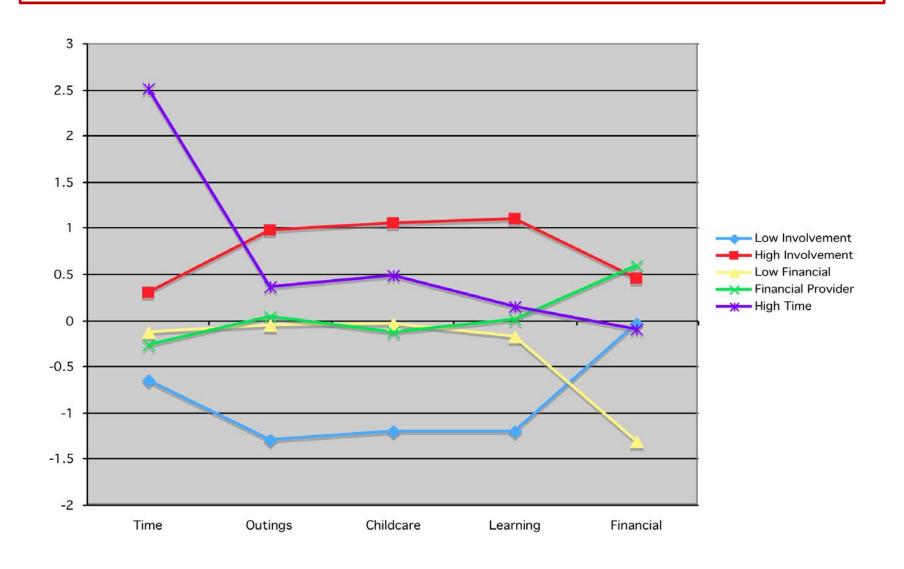
- 799 Fathers of 24-month-old children
- Face-to-face interviews with Fathers
- Fathers reported on their child-related behaviors on 31 items
 - included accessibility, financial responsibility, and direct engagement



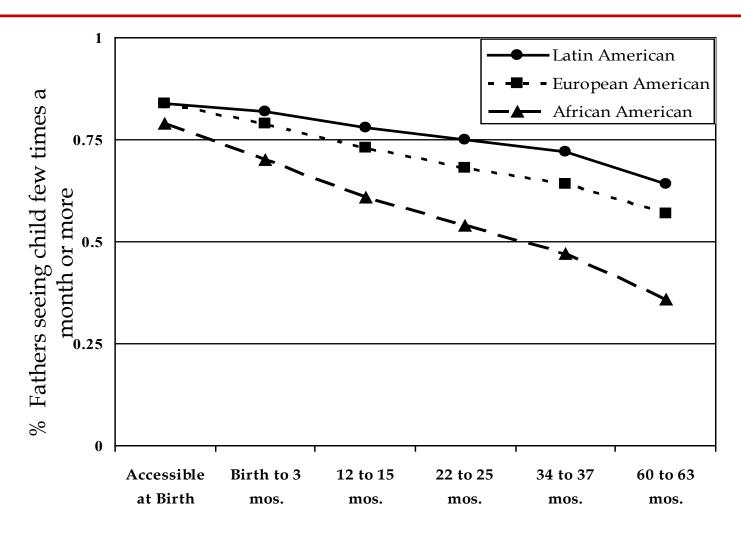
Fathers' Time and Financial Investments

- Factor analysis of 31 father behaviors resulted in 5 factors:
 - Childcare ($\alpha = .86$)
 - Learning Activities ($\alpha = .78$)
 - Outings ($\alpha = .77$)
 - Time with Child ($\alpha = .77$)
 - Financial ($\alpha = .79$)

Fathers' Time and Financial Investments

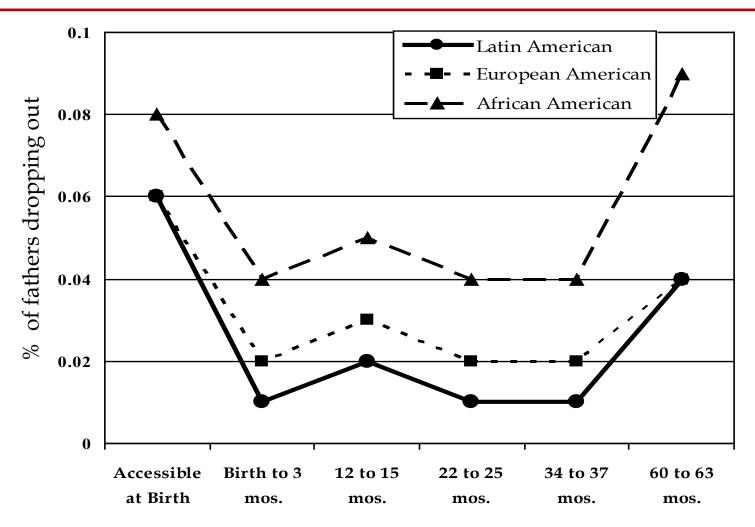


Survivor Function: Father Accessibility



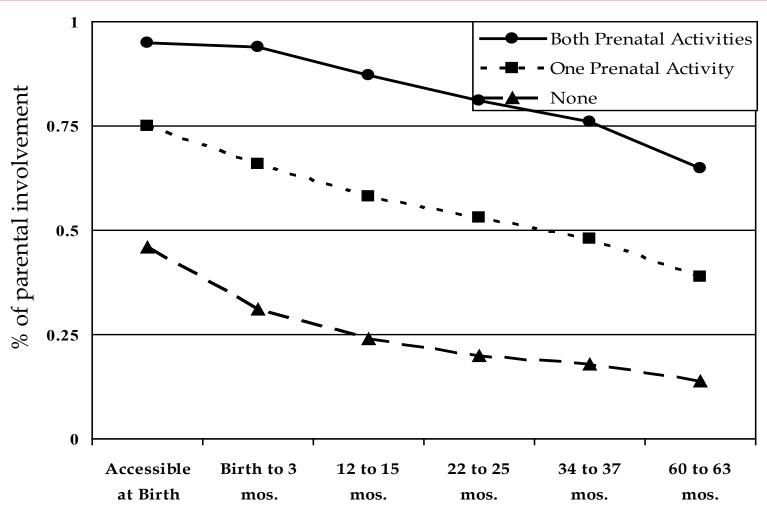
Shannon, Cabrera, Tamis-LeMonda, & Lamb, M. E. (2009). *Parenting:* Science & Practice.

Survivor Function: Father Accessibility



Shannon, Cabrera, Tamis-LeMonda, & Lamb, M. E. (2009). *Parenting:* Science & Practice.

Prenatal Involvement and Risk



Shannon, Cabrera, Tamis-LeMonda, & Lamb, M. E. (2009). *Parenting: Science & Practice*.