

Using Self-Regulation Research to Inform Intervention Strategies for Latino Preschoolers to Enhance School Readiness

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Introduction

Latino children are at significant risk for early school failure, with almost half of Latino kindergarteners entering school with significant deficits in reading and math (Lee & Burkham, 2002). Self-regulation skills have emerged as an important focus of interventions to improve school readiness among children at risk (Ursache, Blair, & Raver, 2012). However, little is known about the determinants of self-regulation skills and best practices for supporting their development among young Latino children. We draw upon data from a longitudinal study of self-regulation development and school readiness among ethnic minority preschoolers to demonstrate how study findings have been used to inform intervention strategies for Latino families and their young children.

Method

Data for this study come from the Dallas Preschool Readiness project which included 407 low-income families (183 African Americans and 224 Latinos). The majority of Latino caregivers were foreign-born (73%) and Spanish-speaking (75%). Most foreign born caregivers were from Mexico (96%). Families were visited twice in their homes, first when the target child was 2½ years old and again 1 year later. At each visit, the child completed tasks to assess self-regulation abilities. School readiness indicators of pre-academic and language skills were assessed at Time 2. Variability in household risk was captured by summing dichotomous indicators of a range of risk conditions in the household. In a follow up study, mother-child interactions were transcribed to quantify child productive vocabulary for 100 Spanish-speaking children.

Risk Factor	Percentage of Cases
Primary Caregiver education less than high school	43%
Extreme poverty (less than 50% federal poverty level)	15%
Single parent	5%
Caregiver depressive symptoms > 16 (clinical cutoff)	11%
Neighborhood/household safety concerns	25%

Measures

Self-Regulation

Time 1 (Child Age 2 ½)	Time 2 (Child Age 3 ½)
Snack Delay (IC)	Snack Delay (IC)
Wrapped Gift/Wait for bow (IC)	Wrapped Gift/Wait for bow (IC)
Forbidden Toy (IC)	Mommy and Me (CRI)
Mommy and Me (CRI)	Heads and Toes (CRI)
Shape Stroop (CRI)	Dimensional Change Card Sort (SS)
Walk-a-line slowly (IC)	Memory Span (WM)

IC= inhibitory control, CRI= complex response inhibition, SS= set shifting, WM= working memory

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Mother-Child Interaction: Three Bag Task (age 2½ years)

Sensitivity Composite: Sum of global 5-point rating scales of Sensitivity, Cognitive Stimulation, Detachment (reversed), Positive regard, Negative regard (reversed) rated from 15-minute videotaped mother-child interaction.

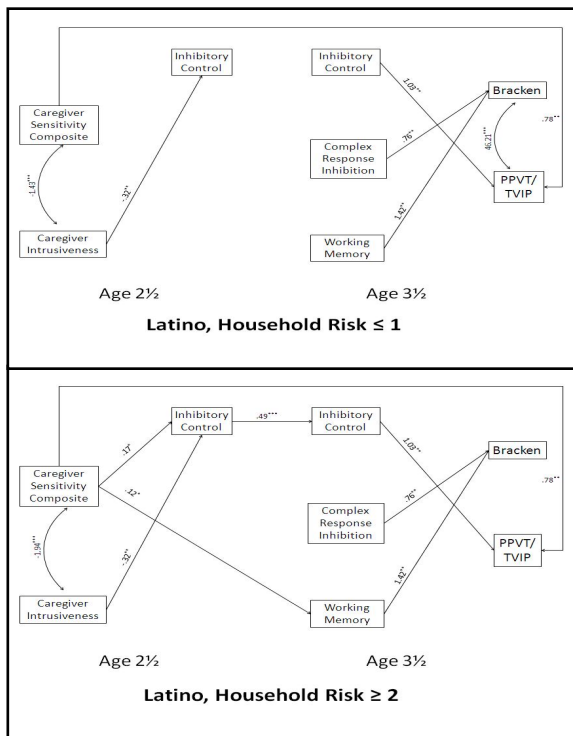
Intrusiveness: 5-point global rating from 15-minutes of mother-child interaction.

Child Productive Vocabulary (100 Spanish-speaking children): 10-minutes of mother-child interactions were transcribed using SALT (Systematic Analysis of Language Transcripts). Number of Different Words (NDW) was used as an indicator of child lexical diversity.

Risk Index

Dichotomous indicators of risk were summed to create a risk index (see table).

Results



Caregiver sensitivity had an indirect positive effect, and caregiver intrusiveness had an indirect negative effect on school readiness as mediated by child inhibitory control and working memory for Latino children living in households with two or more risks.

Follow up Study Findings:

- Children's Number of Different Words (NDW) was low compared to published studies of low-income English-speaking children.
- Caregiver intrusiveness was negatively associated and caregiver sensitivity was positively associated with child vocabulary.
- NDW was the only significant predictor of change in child inhibitory control skills from age 2½ to age 3½ in a multivariate regression analyses.

Inhibitory Control (age 3 1/2)

	B (se)	t
Constant	1.427 (1.422)	1.00
Maternal education	.541 (.307)	1.76
Family income-to-needs ratio	1.329 (.834)	1.59
Maternal sensitivity composite (age 2 ½)	-.037 (.099)	-.37
Maternal intrusiveness (age 2 1/2)	.408 (.236)	1.73*
Child inhibitory control (30 months)	.115 (.108)	1.07
Number of different words (30 months)	.035 (.013)	2.76**

*p < .10; **p < .01

Application: parent-child playful learning program

These findings have informed the development of a community-based intervention for Latino parents and their young children called *Juega Conmigo* ("Play With Me")

What is *Juega Conmigo*?

- Weekly drop-in program free of charge to families who have children ages 0-4
- All families who attend are offered a free developmental screening for their child
- Every session includes:
 - 15-minute conversation with parents about a topic related to early childhood development
 - Free play time for parents and children with developmentally appropriate toys and bilingual developmental specialists available to answer questions or model strategies
 - Group activities and music
 - Community resources

Examples of Parent Training Topics

- What is self-regulation & why is it important?
- Book sharing: strategies to engage young children and help develop their vocabulary
- Encouraging positive behavior
- Improving parent-child communication

