



# Early Parenting Predicts Cognitive Risk for Depression in Children

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## Introduction

- Negative views about the world, the self, and the future are key components of depression, and treatments for depression focus on challenging negative cognitions (Beck, 1987; J. Garber et al., 1993; Judy Garber & Flynn, 2001; Romens et al., 2008, 2008; Singer & Dobson, 2007; Y. Abramson et al., 1989)
- Little is known about the developmental origins of early cognitive risk for depression.
- Early parenting may shape how the child perceives the self and the child's ability to manage stress.
- Examining both negative and positive self-referent verbalizations in relation to early childhood parenting may have important implications for uncovering pathways to children's risk for depression.
- We aim to identify how early negative and positive parental behaviors (hostility, intrusiveness, and support) predict changes in children's negative and positive cognitive styles related to the self from preschool to school age.
- We hypothesized that higher levels of early childhood negative parenting and lower levels of early childhood positive parenting would be concurrently and longitudinally associated with greater negative self-referent verbalizations and fewer positive self-referent verbalizations.

## Participants

Children were recruited from the metropolitan Washington D.C. area

	Wave 1		Wave 2	
Demographic Characteristics				
Child mean age: years SD; range	4.19 (0.81)	3-5.97	6.80 (0.97)	5-10
Mother's mean age: years SD; range	34.68 (6.40)	18-50	38.75 (6.11)	24-53
Father's mean age: years SD; range	36.95 (6.98)	20-57	40.98 (5.61)	28-54
Child sex: female n (%)	88 (50.9)			
Child sex: male n (%)	85 (49.1)			
Child race: n (%)				
White	78 (46.2)			
Black/African-American	61 (36.1)			
Asian	4 (2.4)			
Multi-racial/Other	26 (15.4)			
Child Hispanic ethnicity: n (%)	31 (18.3)			
Biological parents' marital status: n (%)				
Married	115 (66.5)			
Living together	7 (4.0)			
Divorced, separated, or widowed	16 (9.3)			
Never married	35 (20.2)			
Family Income: n (%)				
<\$40,000	30 (18.0)			
\$40,001-\$70,000	34 (20.4)			
\$70,001-\$100,000	45 (26.9)			
>\$100,000	58 (34.7)			
Either parent attended college: n (%)	118 (68.6)			
Parental Lifetime Depression: n (%)			89 (33.0)	
Parental Hostility: mean; SD; range	1.16 (0.32)	1.00-2.80	1.17 (0.41)	1.00-3.25
Parental Intrusiveness: mean; SD; range	1.60 (0.51)	1.00-3.20	1.45 (0.43)	1.00-2.75
Parental Support: mean; SD; range	4.06 (.82)	1.40-5.00	4.41 (.68)	1.50-5.00
Negative Self-Verbalizations: mean; SD; range	-.01 (.78)	-.80-3.86	.05 (.06)	.00-.26
Positive Self-Verbalizations: mean; SD; range	.00 (.78)	-.55-3.29	.04 (.06)	.00-.25
Block Design: mean; SD; range	9.84 (3.09)	4.00-19.00		

## Measures

### Children's Cognitive Styles

Wave 1 stress-inducing laboratory tasks

- Open a clear box in order to retrieve a toy with inoperable keys.
- A timed matching game which was created to be impossible to complete

Wave 2 stress-inducing laboratory tasks

- The Trier Social Stress task for Children (TSST-C; Buske-Kirschbaum et al., 1997).
- Unsolvable puzzle task

Wave 1 and Wave 2 children's cognitive styles were assessed during stress-inducing laboratory tasks, during which negative self-referent verbalizations ("I am really bad at this") and positive self-referent verbalizations ("I think I can make this work") were coded

W1: positive self-referent verbalizations intraclass correlation coefficient [ICC]= .91; negative self-referent verbalizations ICC=.88

W2: positive self-referent verbalizations ICC=.91; negative self-referent verbalizations ICC= .97).

### Observed Parenting Behaviors

Parenting was assessed during W1 and W2 through age-appropriate parent-child interaction tasks, modified from the Teaching Tasks Battery (Egeland et al., 1995).

Wave 1 Parent-Child Interaction Tasks

- book-reading
- wheels
- maze
- story
- tangoes
- gift

Wave 2 Parent-Child Interaction Tasks

- guessing game
- traffic
- maze
- block buddies
- gift

Coders coded each interaction between the parent and child by scoring each task on a scale from 1 (none) to 5 (high) for maternal hostility, intrusiveness and support, each variable coded separately. Scores were averaged across tasks

Based on 38 coded videos at W1 and 28 videos at W2, inter-rater reliability of the scales was excellent (W1 hostility ICC= .89; W1 intrusiveness ICC= .91; W1 support ICC= .96

W2 hostility ICC= .96, W2 intrusiveness ICC= .91; W2 support ICC= .92).

## Table of Bivariate Correlations Among Parental Hostility, Intrusiveness, Support and Child Self-Reverent Verbalizations

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Wave 1 Parental Hostility	-															
2. Wave 1 Parental Intrusiveness	.49**	-														
3. Wave 1 Parental Support	-.59**	-.55**	-													
4. Wave 2 Parental Hostility	.11	.01	-.02	-												
5. Wave 2 Parental Intrusiveness	.14	.07	-.085	.49**	-											
6. Wave 2 Parental Support	-.54**	-.42**	.26**	.01	-.10	-										
7. Wave 1 Child Negative Self-Referent Verbalizations	-.06	.05	.12	.36**	.27**	.07	-									
8. Wave 1 Child Positive Self-Referent Verbalizations	-.10	-.14	.04	-.08	.12	.03	-.14	-								
9. Wave 2 Child Negative Self-Referent Verbalizations	.08	.00	-.00	.11	.02	.03	.10	-.06	-							
10. Wave 2 Child Positive Self-Referent Verbalizations	-.19	-.27**	.21*	-.22	-.07	.10	-.10	.04	-.07	-						
11. Wave 1 Child Age	-.08	-.22**	-.01	.03	.06	.08	-.05	.18*	.06	-.05	-					
12. Wave 2 Child Age	-.09	-.34**	-.06	.05	.09	.03	-.02	.20*	.09	.03	.81**	-				
13. Child Sex	-.06	-.04	.00	-.25**	-.04	.00	-.17*	-.03	-.04	.12	.02	-.08	-			
14. Child Ethnicity	.13	.15*	-.10	.00	-.01	-.05	-.07	-.15	-.01	-.16	-.16*	-.13	-.07	-		
15. Parental Depression	.09	.07	-.20	-.29**	-.08	-.14	-.21	-.05	.00	.06	-.11	-.19	.06	.08	-	
16. Wave 1 Child Cognitive Ability	-.09	-.28**	.19*	.005	-.03	-.20*	.10	.06	-.00	.18	-.08	.01	.04	-.01	-.18	-

## Results

- Wave 1 parental intrusiveness was negatively associated with wave 2 children's positive self-referent verbalizations ( $r = -.27, p = .008$ ).
- Wave 1 parental support was positively associated with wave 2 children's positive self-referent verbalizations ( $r = .21, p = .045$ ).
- No associations were observed between parenting and negative self-referent verbalizations.
- Early parenting at Wave 1 predicted changes in children's positive self-verbalizations over time. We observed that parental intrusiveness at Wave 1 predicted decreases in children's positive self-referent verbalizations from Wave 1 to Wave 2 ( $b = -.04, SE = .01, pr = -.28, p = .007$ ).

## Discussion

- High levels of early intrusive parenting behavior and low levels of early supportive parenting behavior may contribute to early cognitive risk for depression.
- Identifying and targeting parent behavior during early childhood may decrease the emergence of negative cognitive styles and may help lower the risk for future depression.

## Strengths

- This study was a longitudinal study that investigated cognitive risk for depression from early childhood to middle childhood.
- We used age-appropriate tasks.
- The sample was ethnically and racially diverse.

## Limitations

- Parental behavior and child self-referent verbalizations were only measured in a laboratory setting.
- The tasks may not have been stressful for all participants

## Future Directions

- Future research should examine the clinical effectiveness of specific parenting interventions that would help prevent the development of depressogenic cognitive styles and increase positive cognitive styles in young children.

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