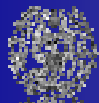


# Addressing the Mental Health Needs of First-Time Adolescent and Adult Mothers

Robin Gaines Lanzi, PhD, MPH, Bette R. Keltner, PhD,  
Shannon C. Bert, PhD, and the Centers for the  
Prevention of Child Neglect

Prepared for the American Public Health Association  
Carol Mowbray Symposium on Maternal Mental Health

Washington, DC  
November 5, 2007



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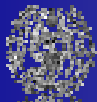


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# The Centers for the Prevention of Child Neglect

## Mission:

- Conduct rigorous scientific inquiry into the causes and consequences of child neglect
- Develop, implement, and evaluate effective prevention and intervention programs
- Disseminate critically needed scientifically based information about positive parenting practices and the prevention of child neglect to families, professionals, and policy makers

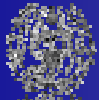
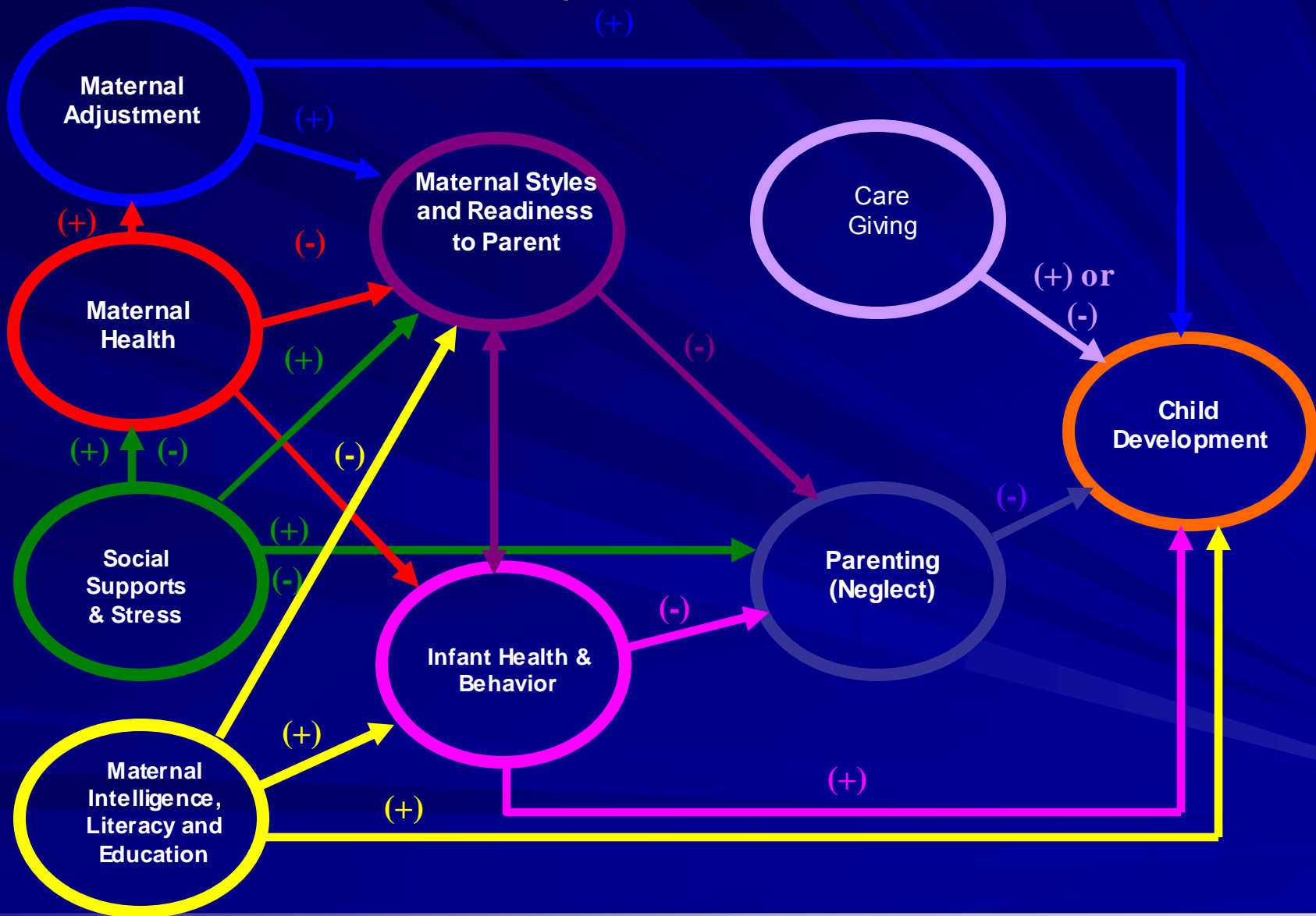


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# The Centers for Prevention of Child Neglect Conceptual Model



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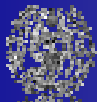
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# The Parenting for the First Time Project

## 4 Study Sites

- Washington, D.C: Georgetown University
  - Bette Keltner, Sharon Ramey, Robin Lanzi, Craig Ramey, and Karen Johnson White
- Birmingham, AL: University of Alabama at Birmingham
  - Kristi Guest
- Kansas City, KS/MO: Kansas University
  - Steve Warren, Judith Carta, Jane Atwater, and Kere Hughes
- South Bend, IN: Notre Dame
  - John Borkowski and Jennifer Burke Lefever

Funding provided by NICHD grants K01 HD42173 and HD39456; cosponsor groups include the CDC, NIDA, and the Department of Education, as well as the Robert Wood Johnson Foundation (# 037224). Cellular phones and service were provided by generous donations from Cingular and Centennial Wireless Corporations



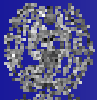
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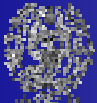
# Study Design

- Prospective and longitudinal
  - Starts during pregnancy
  - Continues until the child's third birthday
- 682 women – no previous live births
- Sample
  - 396 teens (ages 15-18 at time of enrollment)
    - Have not graduated high school or obtained a GED
  - 286 adults (22-35 years)
    - 169 low resource adults
      - no formal education beyond high school/ GED
    - 117 high resource adults
      - completed at least 2 years post-secondary education
- 65% African American, 19% European American, 14% Hispanic/Latina, and 3% of other ethnicities



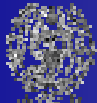
# Data Collection: Mother

- **Family and maternal life and health history**
  - Demographics
  - Family planning
  - Maternal health conditions
  - Maternal history of neglect and abuse
  - Father involvement and characteristics
  - Substance abuse
- **Intelligence (WASI – Vocabulary and Matrix Design)**
- **Socio-emotional characteristics**
  - Depression and aggression
  - Self esteem
  - Social desirability
- **Social support and community support**
- **Responsibilities and Perceptions of Child Neglect**
- **Hopes and Goals**



# Measures of Parenting and Home Environment

- Child Abuse Potential Inventory
- Parenting Stress
- Child Well-Being Scales
- Cognitive Readiness for Parenting
  - Parenting Style, Knowledge of Infant Development
- Parent-Child Activities Interview
- Short Phone Interview
- Sleep Laboratory episodes (Notre Dame only)
- Infant Toddler HOME scale plus Supplement the HOME for Impoverished Families
- Landry Naturalistic Observation
- Indicators of Physical Neglect



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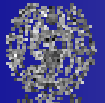


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# Data Collection: Child



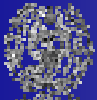
- At 4, 8, 18, 30 months
  - Socio-emotional adjustment and social behavior
  - Task engagement
- At 12, 24, and 36 months
  - Bayley Mental Scale II
  - Bayley Behavioral Rating scale II
  - Infant-Toddler Social & Emotional Assessment
  - Language: Pre-school Language Scale- 4
  - Attachment (Strange Situation – 12-months only)
  - Height and Weight





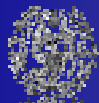
# Data Collection Methods

- **Face-to-face interviews in clinic or community setting**
  - Last trimester of pregnancy and 6 months
- **Face-to-face interviews in lab (combined with child assessments)**
  - 12, 24, and 36 months
- **By home phone**
  - Every two weeks between birth and 4 months
  - Additional frequent “contact” calls
- **Home visits**
  - 4, 8, 18, and 30 months
- **By cell phone**
  - 4, 8, 18, and 30 months



# Maternal Mental Health Research Goals

- Identify the rates of positive depression screens and their fluctuations and stability from the prenatal period through the first 6 months of the baby's life
- Determine the most salient individual and family ecological factors associated with positive maternal depression screens
- Assess how maternal depression affects parenting, children's development, and identified areas of needing support



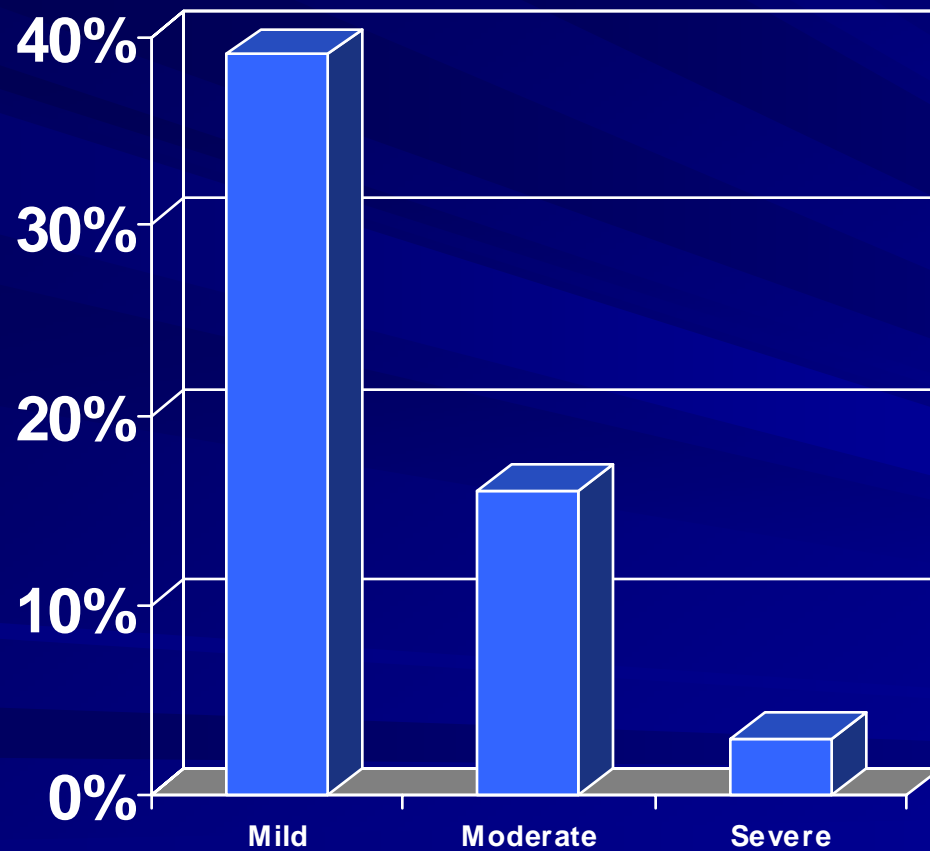
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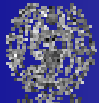
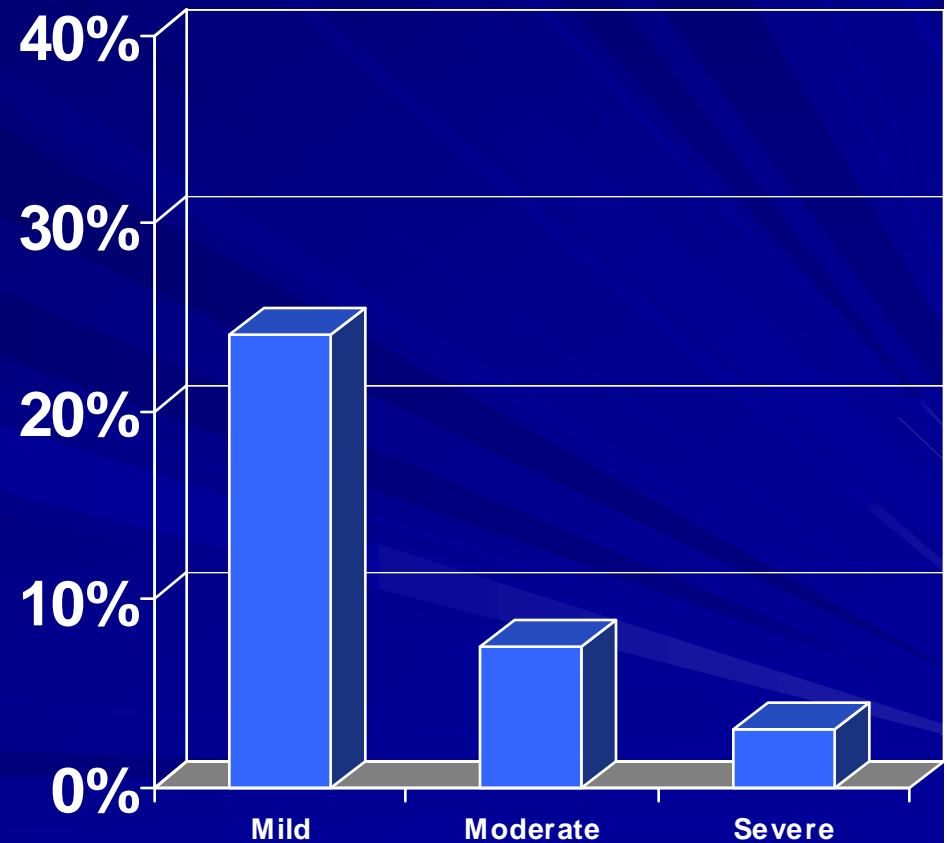
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# Rates of Maternal Depression Screens

During Pregnancy



When Baby is 6 months old



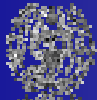
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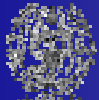
# Percentage of Maternal Depression Screens as a Function of Mom Group

	No Depression	Mild-Moderate Depression	Moderate–Severe Depression	Severe Depression
<b>Prenatal</b> ( $\chi^2 (6) = 15.05, p < .05$ )				
Teen	36.9	41.8	17.2	4.1
Adult LR	48.7	32.9	15.8	2.5
Adult HR	49.1	40.2	10.7	0
Total	41.8	39.4	15.8	3.0
<b>6-Month</b> ( $\chi^2 (6) = 21.36, p < .01$ )				
Teen	58.0	26.9	11.3	3.8
Adult LR	73.2	19.5	4.9	2.4
Adult HR	80.2	19.8	0	0
Total	66.1	23.7	7.5	2.7



# Consistency of Beck Clinical Ratings Prenatally – 6 months of age

	<b>Consistent No Depression</b>	<b>Consistent Depression</b>	<b>No Longer Depressed</b>	<b>Became Depressed</b>
Teen	25.4%	32.1%	33.0%	9.6%
Adult Low Resource	33.3%	16.7%	41.0%	9.0%
Adult High Resource	44.3%	15.2%	35.4%	5.1%
Total	31.1%	25.1%	35.2%	8.5%



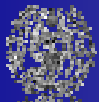
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# Percentage of Mothers Experiencing None vs Some Depression Prenatally and their Association with Specific Factors Prenatal

	Teen		Adult Low Resource		Adult High Resource		Total	
	None	Some	None	Some	None	Some	None	Some
Highest Grade								
Didn't complete high School	22.3	55.4	17.5	16.7	0	0	15.1	28.6
High school diploma	7.4	13.5	25.0	24.2	1.1	1.1	11.8	14.0
At least some college	0	1.4	8.3	8.3	44.9	52.8	14.0	16.5
Employed								
Yes	33.9	56.9	36.6	36.9	20.5	20.5	32.2	45.9
No	2.9	6.3	12.1	14.6	28.6	30.4	9.5	12.4
Ethnicity								
Latina	4.2	9.0	12.2	6.4	8.4	1.9	6.9	7.2
European American	4.8	9.5	7.1	8.3	18.7	25.2	7.7	11.9
African-American	27.6	44.8	29.5	36.5	20.6	25.2	26.9	39.5



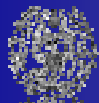
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## Percentage of Mothers Experiencing None vs Some Depression and their Association with Specific Factors (Continued) Prenatal

	Teen		Adult Low Resource		Adult High Resource		Total	
	None	Some	None	Some	None	Some	None	Some
# of Children Living in the Home								
1	17.1	25.9	33.3	33.3	52.2	30.4	21.9	27.2
2	16.0	17.9	18.8	4.2	4.3	8.7	15.6	15.3
3	4.2	13.7	6.3	0	0	4.3	4.2	11.1
> = 4	2.3	3.0	2.1	2.1	0	0	2.1	2.7
# of Adults Living in the Home								
1	18.8	48.2	35.8	41.5	47.8	47.8	29.6	46.2
> = 2	15.6	17.4	10.6	12.2	1.1	3.3	11.2	13.0



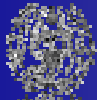
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# Percentage of Mothers Experiencing None vs Some Depression and their Association with Specific Factors Baby 6 Months Old

	Teen		Adult Low Resource		Adult High Resource		Total	
	None	Some	None	Some	None	Some	None	Some
<b>Highest Grade</b>								
Didn't complete high School	42.3	35.9	24.6	6.6	0	0	23.2	15.5
High school diploma	14.1	7.7	32.8	13.1	1.5	0	15.5	6.8
At least some college	0	0	14.8	8.2	76.5	22.1	29.5	9.7
<b>Support Person</b>								
Yes	59.2	40.8	71.6	28.4	79.5	20.5	66.6	33.4
No	0	0	0	0	0	0	0	0
<b># of Children Living in the Home</b>								
1	27.1	15.3	50.0	13.6	57.1	21.4	32.2	15.6
2	18.8	15.3	18.2	4.5	14.3	0	18.3	12.8
3	8.3	9.7	13.6	0	0	7.1	8.3	8.3
> = 4	3.5	2.1	0	0	0	0	2.8	1.7



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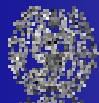
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# Prenatal Depression Predicting Mother's Observed Interactions with Baby (8 months old)

	Teen		Adult Low Resource		Adult High Resource		Total	
	$R^2$	$\beta$	$R^2$	$\beta$	$R^2$	$\beta$	$R^2$	$\beta$
Positive Affect	.00	-.05	.01	.12	.02	-.16	.00	-.05
Warmth or Sensitivity	.02	-.13+	.04	-.21+	.05	-.23*	.04	-.19**
Contingent Responsiveness	.02	-.13*	.06	-.24*	.02	-.14	.03	-.18**
Physical Intrusiveness	.00	-.01	.00	-.03	.01	-.11	.00	-.04
Punitive Tone	.00	.00	.01	-.12	.03	-.16	.00	-.06
Verbal Content	.00	.05	.03	-.18	.06	-.24*	.00	-.07
General Verbalness	.02	-.13+	.01	-.11	.09	-.30**	.03	-.17**

Note: \*\*  $p < .01$ ; \*  $p < .05$ ; + = Approaching significance.



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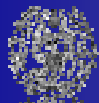


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# Prenatal Depression Predicting Baby's Behaviors at 8 Months of Age

	Teen		Adult Low Resource		Adult High Resource		Total	
	$R^2$	$\beta$	$R^2$	$\beta$	$R^2$	$\beta$	$R^2$	$\beta$
Warmth Seeking	.02	-.12	.02	-.14	.01	-.11	.02	-.13**
Behavioral Regulation	.00	.05	.02	.13	.00	.05	.01	-.05
Attention and Arousal	.02	-.15*	.02	.15	.00	.01	.01	-.07

Note: \*\*  $p < .01$ ; \*  $p < .05$ ; + = Approaching significance



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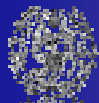


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# Prenatal Depression Predicting Baby's Behaviors at 8 Months of Age

	Teen		Adult Low Resource		Adult High Resource		Total	
	$R^2$	$\beta$	$R^2$	$\beta$	$R^2$	$\beta$	$R^2$	$\beta$
Warmth Seeking	.02	-.12	.02	-.14	.01	-.11	.02	-.13**
Behavioral Regulation	.00	.05	.02	.13	.00	.05	.01	-.05
Attention and Arousal	.02	-.15*	.02	.15	.00	.01	.01	-.07

Note: \*\*  $p < .01$ ; \*  $p < .05$ ; + = Approaching significance



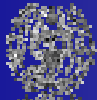
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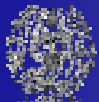
# Summary

- Rates of depression higher during pregnancy than when baby is 6 months old
- Significant difference prenatal and 6-month depression clinical ratings as a function mom group - teen mothers display most severe
- Significant association between chronicity of depression and mom group, with a higher percentage of teen mothers consistently depressed
- Moderate association found for adult high resource mothers and ethnicity, with European American and African-American mothers more likely to report some depression as opposed to Latina mothers
- Overall, a significant association documented between depression and employment status for the total sample of mothers - working mothers more likely to report no symptoms of depression than mothers who were not working 6-months after the birth
- For all mothers, as depression increased, both mothers and children scored less favorably in their interactions



# Implications

- Research
- Intervention
- Service
- Policy



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