

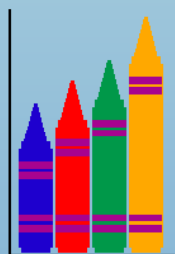


## OSEP Center on Evidence-based Practice: Young Children with Challenging Behavior

([www.challengingbehavior.org](http://www.challengingbehavior.org))

Multi-site, Longitudinal Study:

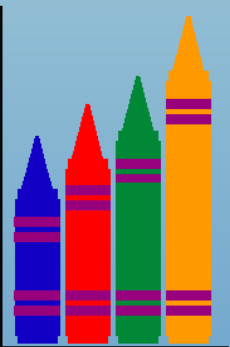
The KIDS Study



Center for Evidence-Based Practice:  
Young Children  
with Challenging Behavior

# KIDS Study - Lead Investigators

- University of South Florida – Dunlap, Fox
- University of Colorado at Denver - Strain
- University of Florida - Conroy
- University of Kansas - Juniper Gardens - Carta
- Lehigh University – Kern
- Tennessee Voices for Children – Timm
- 
- USF - Data Base & Infrastructure – Lardieri, Sowell
- USF – Statistician - Banks

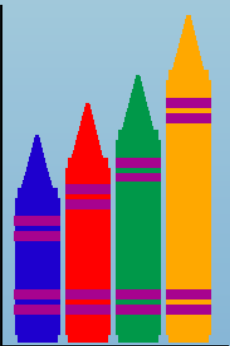


# Purpose



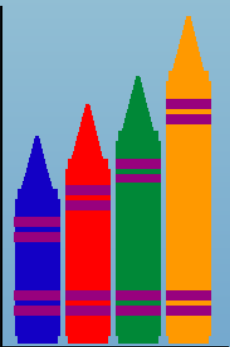
The principal goals of the KIDS Study are to:

- (1) describe in detail the developmental trajectories of a diverse population of young children who exhibit serious challenging behaviors, or who are at high risk for developing challenging behaviors, and
- (2) identify variables that may predict different trajectories as well as different outcomes, such as readiness for kindergarten.



# Some Anticipated Contributions

- Describe natural history of challenging behaviors in important populations of young children
- Provide first empirical evidence of preventive factors regarding challenging behaviors from a multi-variate perspective
- Provide necessary first-generation data for second-generation empirical tests of interventions



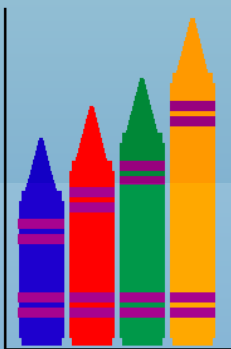
# Eligibility & Recruitment

## Eligibility:

- (1) child is between 18 and 48 months;
- (2) parent/legal guardian provides informed consent and expresses willingness to participate for at least 3 years;
- (3) (a) child exhibits challenging behavior that is being formally addressed by an early intervention or early childhood special education provider *or* (b) child displays challenging behavior according to Center definition (impediment to development & social participation; chronicity) *or* (c) child meets criteria for being at high risk of challenging behaviors due to presence of 4 of 10 risk factors.

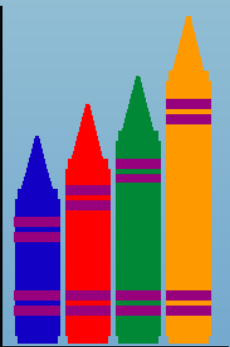
## Recruitment - from 6 sites/programs targeting these high risk populations

- Lehigh Valley, PA; Nashville, TN (RIP), Gainesville, FL; Tampa Bay area , FL; Denver, CO; Kansas City and Lawrence, KS.



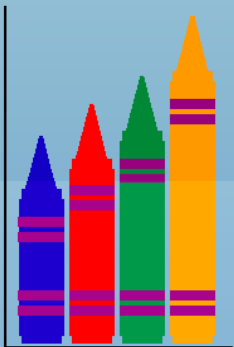
# Design and Measurement

- Accelerated (longitudinal) growth curve design, with two cohorts...
  - 18-30 months
  - 36-48 months
- Data collection – every 6 months
- Measurement Categories
  - Child Measures ; Family Measures; Ecological/Contextual Measures; Intervention Measures (but very limited); Growth Outcomes; Kindergarten Outcomes




# Current Status

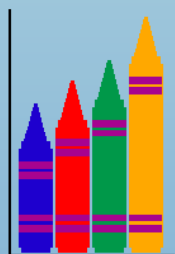
- Recruitment/Data collection initiated in late 2003
- Recruitment completed in August, 2005
- Wave 1 enrollment = 244 participants
- All Wave 1-3 data in data base; Clean up of data nearing completion
- Available data from Waves 4-6 being entered
- Data analyses under way



## Some Descriptive Statistics --- at Entry (Wave 1)



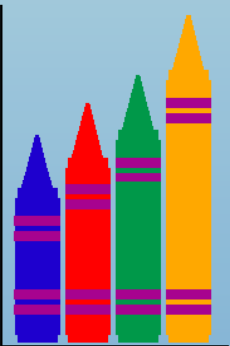
From Dunlap et al.  
Conference on Research  
Innovation in Early Intervention  
February, 2006



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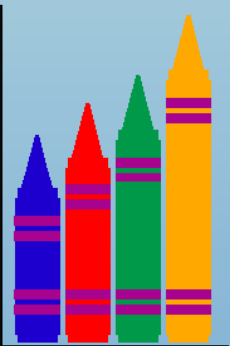
# Population Description (n=244)

|                         |       |
|-------------------------|-------|
| Male                    | 62.6% |
| Female                  | 37.4% |
|                         |       |
| Enrolment age > 36 mos. | 47.2% |
| Enrolment age < 36 mos. | 52.8% |
|                         |       |
| African-American        | 34.1% |
| Caucasian               | 37.1% |
| Hispanic                | 20.5% |
| Other                   | 8.3%  |




# Population Description (n=244)

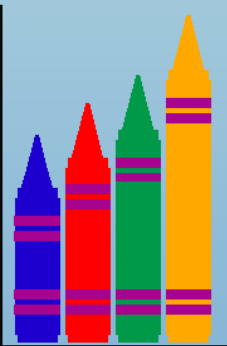
|                          |       |
|--------------------------|-------|
| Known Dev. Delay         | 11.2% |
| Known Autism             | 5.1%  |
| Known Language Problems  | 29.7% |
|                          |       |
| CBCL Total > Clinical    | 34.9% |
| CBCL Internal > Clinical | 23.3% |
| CBCL External > Clinical | 40.6% |



# Some Risk Factors

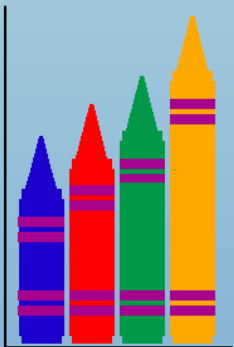


|                                          |       |
|------------------------------------------|-------|
| Hx of Mental Illness (birth family)      | 39.5% |
| Hx of Substance Abuse (birth family)     | 32.3% |
| Hx of Criminal Conviction (birth family) | 28.2% |
| Hx of Domestic Violence (birth family)   | 17.9% |
| Hx of Child Protection                   | 13.5% |
|                                          |       |
| Hx of Sleeping Problems (Child)          | 39.5% |

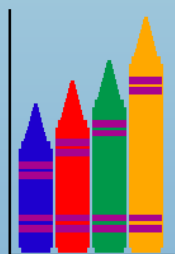


# Population by Site

|              | UC-D | KU   | Lehigh | TVC  | UF   | USF  |
|--------------|------|------|--------|------|------|------|
| % of Total N | 12.3 | 16.9 | 18.8   | 15.7 | 12.3 | 24.1 |
|              |      |      |        |      |      |      |
| % Male       | 46.9 | 68.2 | 73.5   | 65.9 | 56.3 | 58.7 |
|              |      |      |        |      |      |      |
| % > 36 mos   | 25   | 50   | 55.1   | 58.5 | 43.8 | 42.9 |
|              |      |      |        |      |      |      |



# Data Analyses

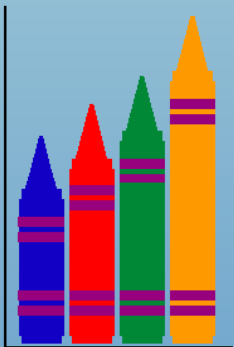


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# Examples of Analyses in Progress

- Relationships between language and behavior
- Relationships between key predictor variables (e.g., quality of child care; family functioning) and behavior problems at Wave 1
- Relationships between predictor variables at entry and behavior problems over time (Waves 2-5)
- Cumulative risk factors and relationships to behavior and language development

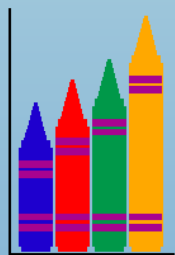
- 
- Kindergarten readiness and kindergarten functioning\*\*\*





## Some Data on Cumulative Risk Factors: Preliminary Findings from KIDS Study

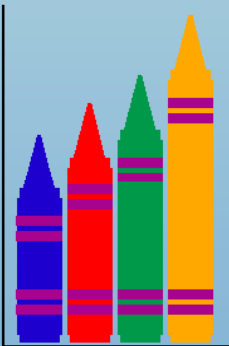
Carta, Lardieri, & Timm  
Conference on Research  
Innovation in Early Intervention  
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# Risk Factors and Their Criteria

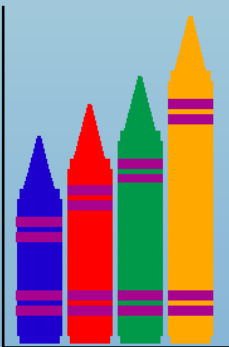
| Risk                         | Measure                                         | Criteria                 |
|------------------------------|-------------------------------------------------|--------------------------|
| Mental Illness               | History of mental illness in family?            | Yes                      |
| Criminality                  | Birth parents convicted of crime?               | Yes                      |
| Marital discord              | History of domestic violence                    | Yes                      |
| Child maltreatment           | Child Protection concerns about safety of child | Yes                      |
| Teen mom                     | Birth mom's age                                 | <18 yrs at child's birth |
| English not primary language | Language child hears most at home?              | Not English              |
| Parental distress            | Parenting Stress Inventory-Distress Subscale    | In clinical range        |



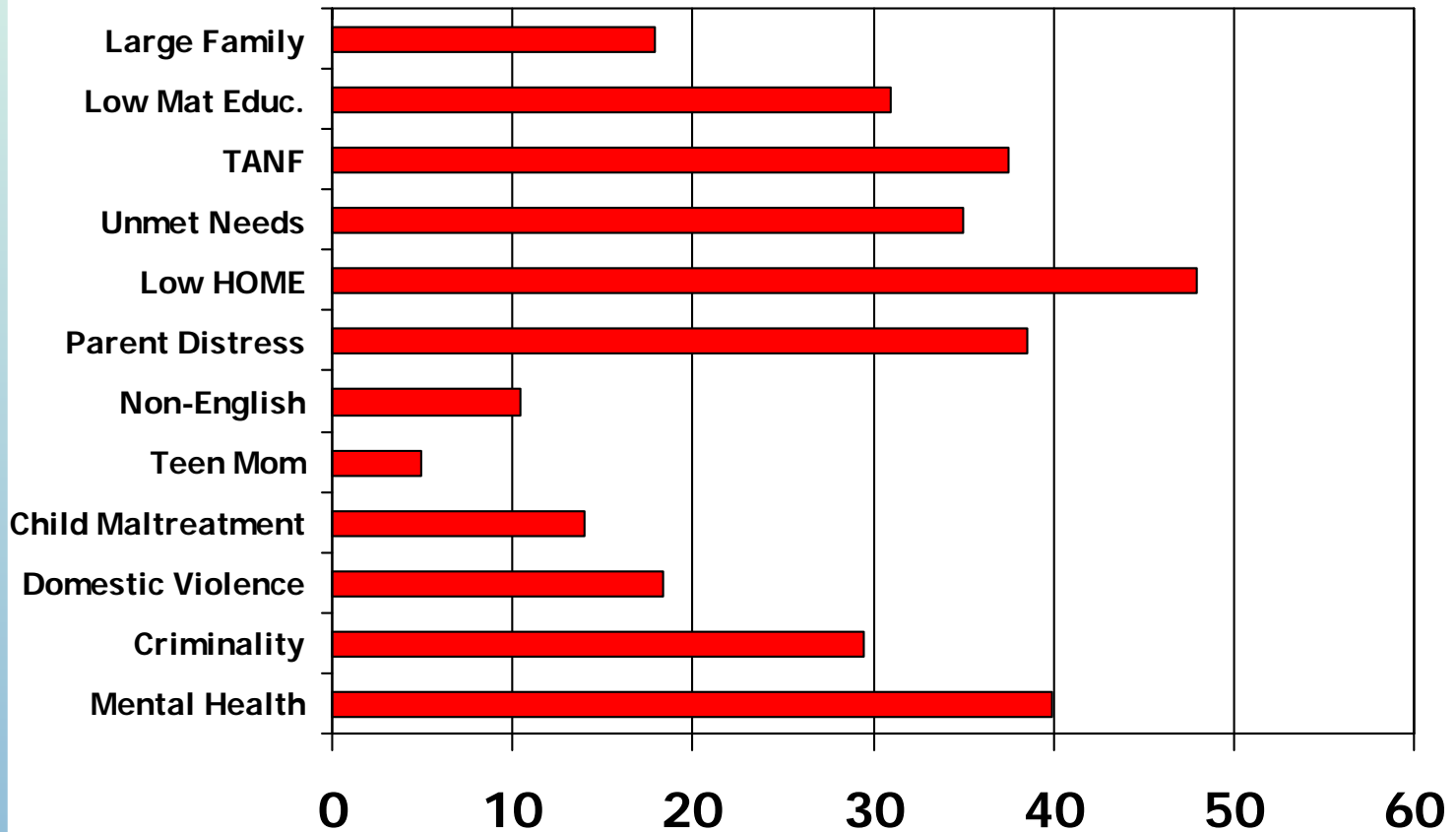
# Risk Factors and Their Criteria (cont.)



| Risk                                   | Measure                                              | Criteria                                            |
|----------------------------------------|------------------------------------------------------|-----------------------------------------------------|
| Low stimulating home environment       | HOME Total Score (Infant-Toddler or Early Childhood) | Score in lowest 1/3 of our sample                   |
| Lack of family support                 | Unmet needs on Family Support Scale                  | Number of unmet needs is in upper 1/3 of our sample |
| Low income                             | Family is TANF recipient                             | Yes                                                 |
| Limited education of primary caregiver | Primary caregiver's education                        | < High School diploma                               |
| Large family size                      | Number of children                                   | 4 or more children                                  |

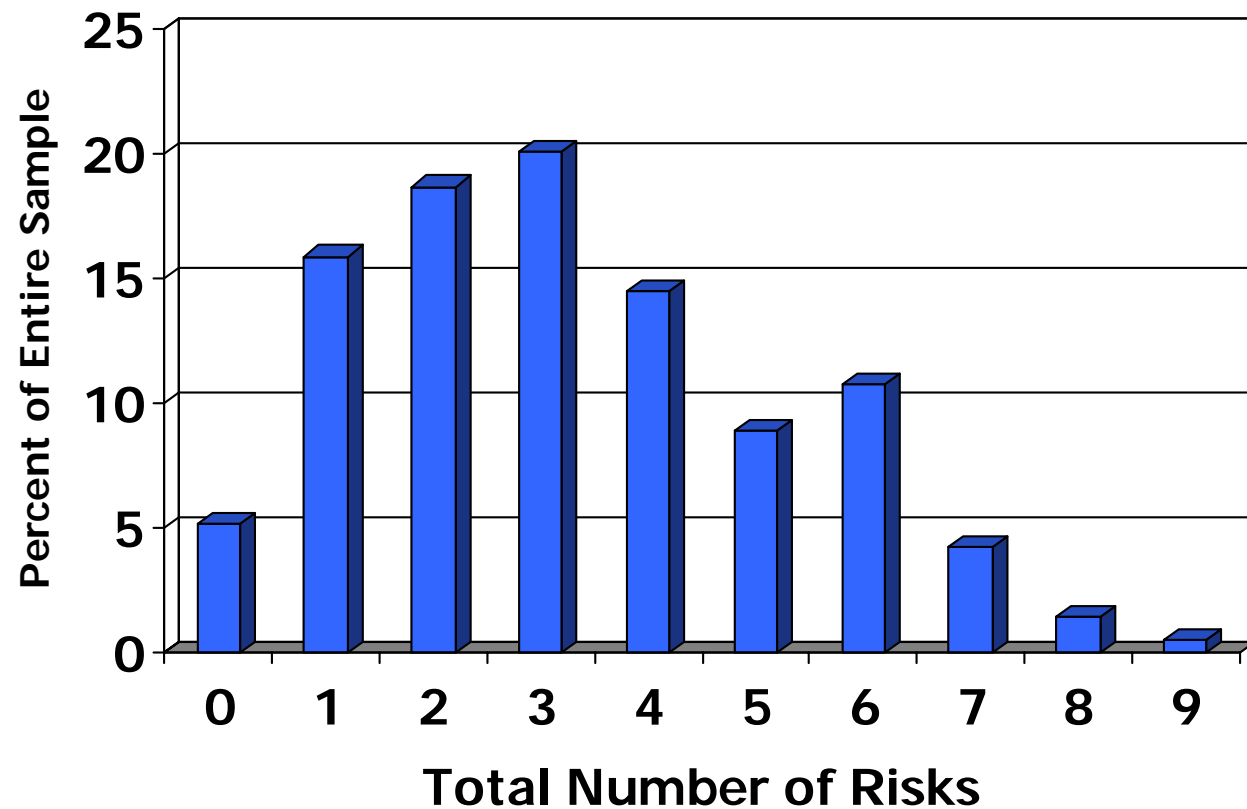


## Percentage of Sample with Risk Factor



N = 244

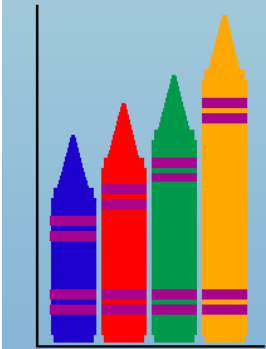
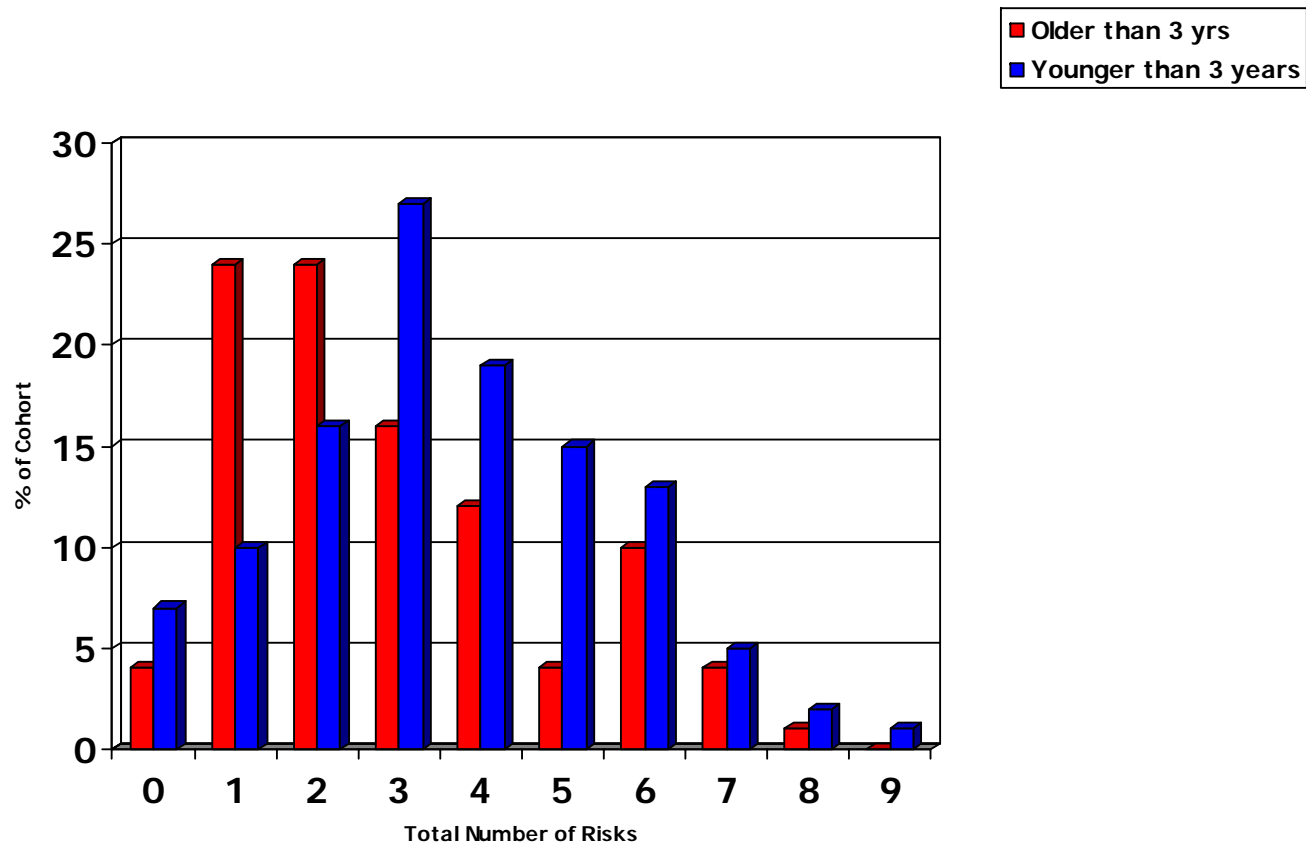
# Distribution of Cumulative Risk Across Entire Sample



N = 244

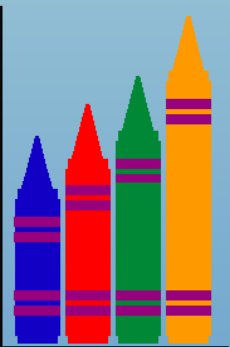
M=3.25; sd = 1.97

# Cumulative risk: younger and older children in KIDS sample



# Correlations between risks and behavioral outcomes

- Risk most highly correlated with CBCL-Externalizing:
  - Parent Distress:  $r = .255; p < .001$
- Risks most highly correlated with CBCL-Internalizing
  - Parent Distress:  $r = .185; p < .004$
- PLS-Expressive
  - Low Home Environment:  $r = .34; p < .001$
  - SES:  $r = -.26; p < .0001$
  - Maternal education:  $r = .25; p < .0001$



# KIDS STUDY - Summary

- Unique data set – first data set focused on understanding the development and nature of challenging behavior
- Knowledge of trajectories may yield important information for
  - Focus of intervention activities (e.g., child-focused vs. family-focused)
  - Approaches needed for intervention (e.g., parenting, parenting stress, language promotion, quality child care)
  - Timing of intervention
  - Ecologies linked to optimal outcomes

