

Media Roundtable on the Youth PROMISE Act

February 27, 2007

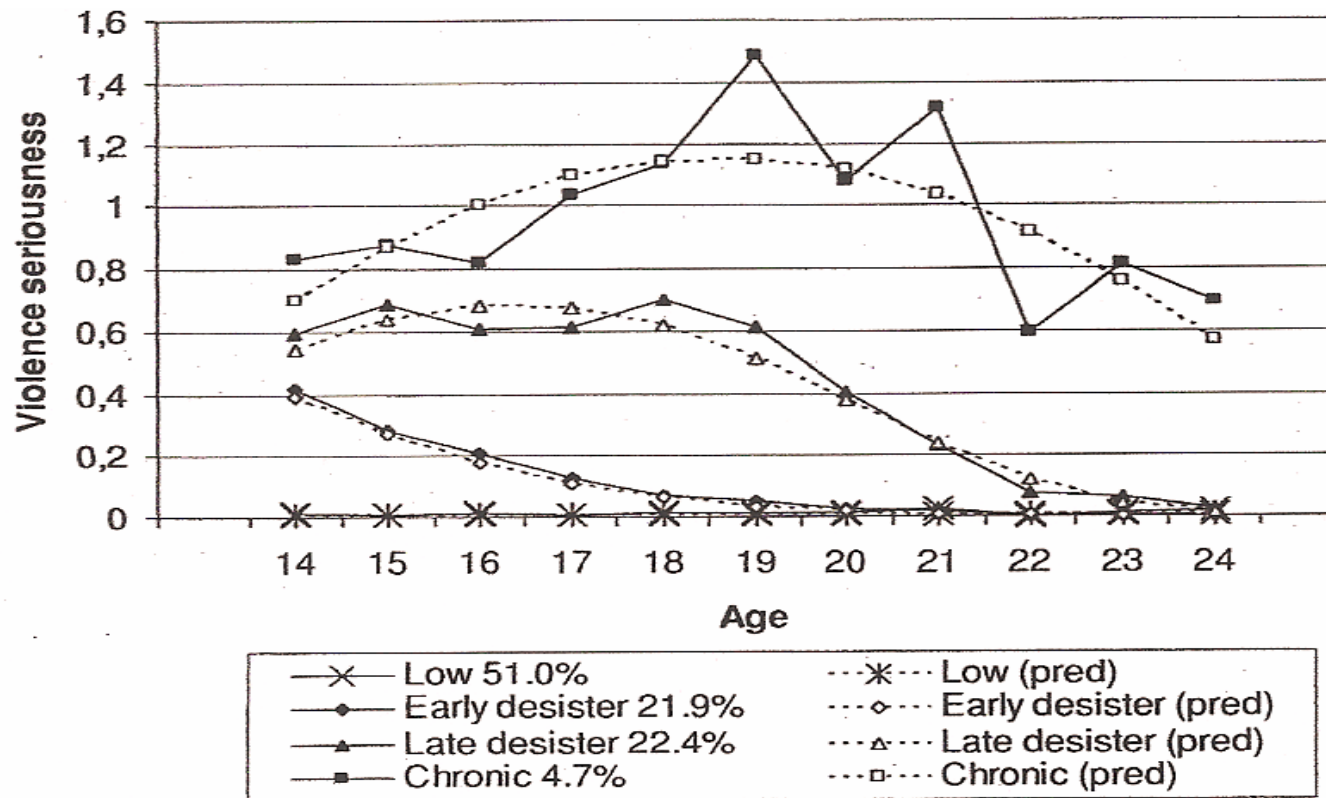
The Promise of Early Childhood Education

DEBORAH A. PHILLIPS, Ph.D.
Professor of Psychology and Public Policy
Co-Director, Center for Research on Children in the U.S.
Georgetown University

The Development of Aggressive Behavior

- Peak in frequency of physical aggression occurs during early childhood
- Children learn NOT to physically aggress
- Core task of the toddler and preschool years and of their caregivers
- Once in kindergarten, the window for prevention has closed

Violence ages 14-24 years



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Loeber, R., Lacourse, E., & Homish, D.L. (2005). Homicide, violence and developmental trajectories. In R.E. Tremblay, W.H. Hartup & J. Archer (Eds.). *Developmental origins of aggression*. NY: Guilford Press.

Violence ages 17 to 42 months

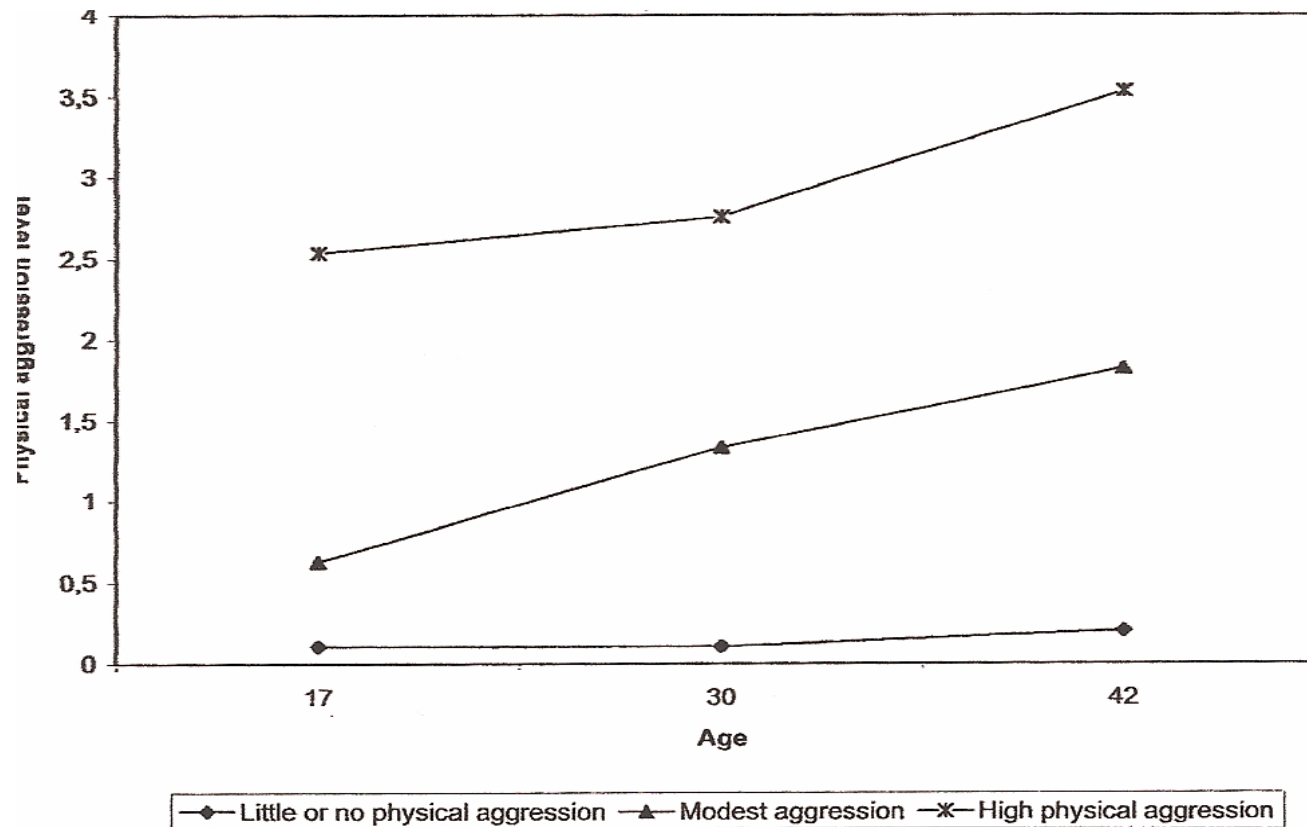


Fig 1 Trajectories of physical aggression from 17 to 42 months of age.

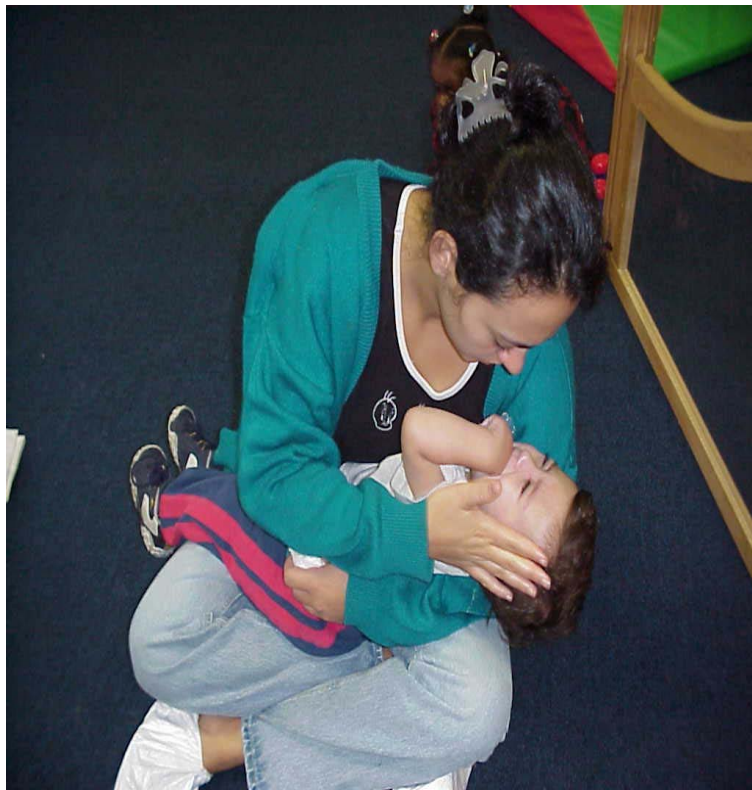
Tremblay, R.E. et al. (2004) Physical Aggression during early childhood: Trajectories and predictors. *Pediatrics*, 114, 43-50.

Early Brain Development



Brains are built over time,
Neural circuits are wired in a bottom-up sequence, and
The capacity for change decreases with age.

The interaction of genes and experience shapes the architecture of the developing brain, and the active agent is the “serve and return” nature of children’s relationships with the important adults in their lives



What Goes Wrong? The Neurobiology of Stress

- Exposure to TOXIC STRESS recalibrates the young brain.
- Strong, prolonged activation of the body's stress response systems in the absence of the buffering protection of adult support.
- Can damage developing brain architecture and create a short fuse for the body's stress response systems, leading to lifelong problems in learning, behavior, and both physical and mental health.

What do we see?

- Disrupted cortisol metabolism
- Distorted perceptual systems such that neutral faces are perceived as angry
- Distorted processing of social cues
 - Readiness to perceive ambiguous interactions as threatening/hostile
 - Hypervigilance to hostile cues
 - Ready access to aggressive responses
 - Difficulty generating proactive, non-aggressive solutions
 - Goals for social encounters that emphasize dominance

What is Toxic?

Persistent poverty

Maternal depression

Family dysfunction & violence

Coercive parenting

Abuse and neglect

What Predicts Early Physical Aggression?

Persistent poverty

Maternal depression

Family dysfunction & violence

Coercive parenting

Early motherhood

Mother adolescent antisocial behavior

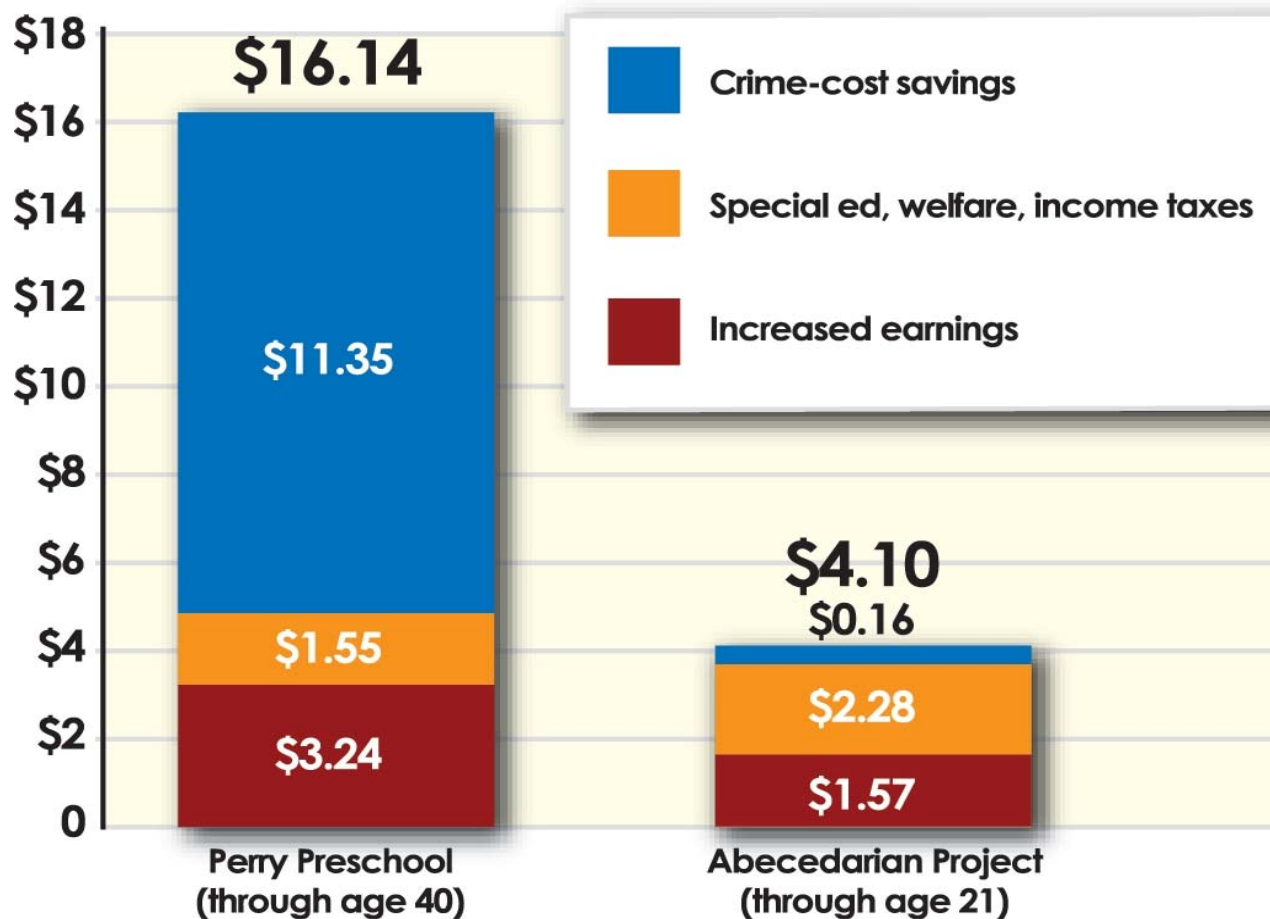
from Tremblay, R.E. et al. (2004) Physical Aggression during early childhood: Trajectories and predictors. *Pediatrics*, 114, 43-50.

The Crucible of Peer Groups

- Dominance hierarchies with bullies and victims emerge among 2-3 year olds in peer groups
- Occupying subordinant positions is associated with heightened stress reactivity, early indicators of psychopathology and possibly more chronic illness (causal paths unknown)
- Child care as risk or early intervention?

Cost/Benefit for Two Early Childhood Programs

(Dollars returned for each dollar invested)



Source: Schweinhart, Montie, Xiang, et al. (2005); Masse & Barnett (2002)

Scaled Up Programs

- **Chicago Parent-Child Centers**
 - Increased High school completion
 - Lower arrest rates by age 18
- **Head Start**
 - Reduced arrests for African-Americans by 12%

Implications for Policy

- Address mental health and domestic violence among prospective parents
- Focus prevention interventions on families with high-risk profiles during prenatal and post-natal years
 - Parents own mental health and conflict strategies
 - Disruption of coercive cycles
 - Intensive, with highly trained staff

Implications for Policy

- Approach child care and early childhood programs as promising settings for early intervention
 - Zero tolerance for dominance hierarchies; emphasize egalitarian peer interactions
 - Qualified and well-compensated personnel who have knowledge and skill in early identification, fostering prosocial behavior
 - Addition of mental health consultation

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