

Abstract

Promoting Resilience: A Preschool Intervention Enhances the Adolescent Adjustment of Children Exposed to Early Adversity

Background/Context:

Children growing up in poverty are especially likely to experience adversity during the first five years of life, including parent-child separations, family violence, unstable housing, and parental dysfunction that reduces early parenting support (Evans, 2004). This early adversity may leave children vulnerable to feelings of distress and insecurity in later life, particularly during high-stress events such as the transitions into middle and high school that most students undergo in early adolescence. Interventions implemented in the preschool context may foster later resilience to school stressors by helping children develop skills that support successful adaptation and coping, including the capacity to regulate their emotions and to form supportive relationships with teachers and peers.

Purpose/Objective/Research Question:

This study evaluated associations between exposure to adverse childhood experiences (ACEs) in early childhood and later adolescent adjustment, and, in addition, it evaluated the degree to which the preschool REDI intervention promoted resilience and buffered children against the negative effects of ACEs on levels of social-emotional distress and school bonding experienced in adolescence. It was hypothesized 1) that early childhood ACEs would predict heightened emotional distress and diminished school bonding in early adolescence, and 2) that the REDI preschool intervention delivered in Head Start would buffer children against the negative effects of early ACEs, reducing or ameliorating negative effects on early adolescent emotional distress and school bonding.

Setting:

Participants were recruited from 44 Head Start classrooms in Huntingdon, Blair, and York counties in Pennsylvania. The counties were primarily rural, though one county had a small city making it more urban.

Population/Participants/Subjects:

Participants included 356 prekindergarten children (58% Caucasian, 17% Latinx, 25% African American; 54% girls; $M_{age} = 4.59$ years old at study enrollment). Families were low-income (median annual income of \$15,000). About one-third (31%) of the parents had less than a high school education, 60% graduated from high school or received a GED, 8% completed a technical degree, and 2% completed a college degree.

Intervention/Program/Practice:

The Head Start REDI classroom program targeted social-emotional learning and language/emergent literacy skills and was administered during the children's Head Start (prekindergarten) year. Teachers taught the 33 weekly lessons of the Preschool PATHS curriculum, covering the topics of prosocial skills, emotional understanding, self-control, and social problem-solving. Lessons introduced skill concepts using stories, puppet shows, and role plays, and teachers reinforced skill practice during weekly hands-on extension activities and by

using REDI teaching strategies (positive classroom management, emotion coaching, and problem-solving dialogue) in the classroom. To reinforce social-emotional skills and enrich support for language development, teachers led interactive reading lessons four days per week. Books were selected to link with the PATHS lesson of the week and teachers were provided with suggested questions to help them engage children in active discussion of the story. REDI also included a set of sound games to boost children's phonological awareness, and alphabet center activities to build print awareness. To support intervention implementation, teachers received detailed manuals, four days of workshop training, and weekly coaching with a trained REDI Consultant (see Bierman et al., 2008 for more details).

Research Design:

The Head Start REDI intervention utilized a randomized-controlled design (RCT) where REDI was compared against usual practice Head Start curriculum. Head Start classrooms in the same centers were always assigned to the same condition to avoid contamination. Stratification by several factors (e.g., urban vs. nonurban, half-day vs. full-day) within each county resulted in an even distribution across groups and conditions. REDI also utilized a multi-informant (parents, teachers, and children) and multimethod measurement (questionnaires, interviews, standardized assessments, direct observation) design. REDI team members followed up with children and families as they moved to various schools to complete longitudinal data collection (through Grade 9 for this study).

Data Collection and Analysis:

Parents and teachers provided informed consent and students provided assent for participation; participants were compensated financially for completing assessments. For this study, demographic data was collected at study entry, and children completed questionnaires at the beginning of grades 7 and 9. Multilevel latent profile analyses were conducted to attempt to reveal distinct profiles of adolescent distress and school bonding, to determine whether ACEs predicted membership in those profiles, and to see if the REDI intervention also predicted profile membership.

Findings/Results:

Multilevel latent profile analyses revealed three profiles of adolescent distress and school bonding. Increased rates of ACEs in early childhood predicted membership in adolescent profiles characterized by heightened social-emotional distress and reduced levels of school bonding. The REDI intervention that focused on promoting early social-emotional and language skills in preschool moderated the impact of early ACEs on adolescent adjustment and promoted youth resilience, significantly buffering children who experienced the most early adversity from the negative impact of early ACEs on their levels of social-emotional distress and school bonding.

Conclusions:

The study findings carry important implications for educational policy and practice. Given that ACEs are common in the lives of young children growing up in poverty, it is important that interventions effective at mitigating their impacts be readily available in classroom settings, and that teachers receive the training and professional development required to implement them in a time- and cost-effective manner. Many of the interventions designed to reduce social-economic disparities in education focus on enriching cognitive programming in

preschool; this study suggests that focused and evidence-based efforts to support social-emotional learning in preschool may be especially important for children growing up in poverty in order to address the negative impact of ACEs on their future social-emotional well-being and school engagement. It further demonstrates that classroom teachers can effectively promote the resilience of children with high ACEs exposure, when they are provided with an evidence-based SEL program and coached in teaching strategies that enhance child social-emotional and self-regulation skills. Future studies are needed to replicate and expand these findings and to explore the scalability and sustainability of preschool-based interventions like REDI that may support resilience and enhance the later school adjustment and social-emotion well-being of high-risk children.

References

- Bierman, K. L., Domitrovich, C. E., Nix, R. L., Gest, S. D., Welsh, J. A., Greenberg, M. T., ... & Gill, S. (2008). Promoting academic and social-emotional school readiness: The Head Start REDI program. *Child Development, 79*, 1802-1817.
- Evans, G. W. (2004). The environment of childhood poverty. *American Psychologist, 59*, 77-92.

Table 1.*Relative Risk of Social-Emotional Distress Latent Profile Membership*

Sample	Comparison	Relative Risk	Lower Bound	Upper Bound	p
High ACEs (No Intervention)	Medium vs. High Distress	.63	.31	1.29	0.52
	Low vs. High Distress	.26*	0.13	.51	0.05
	Low vs. Medium Distress	.40*	0.25	.64	0.05
High ACEs (Intervention)	Medium vs. High Distress	2.65	.96	7.34	0.34
	Low vs. High Distress	8.10*	3.16	20.80	0.03
	Low vs. Medium Distress	3.06+	1.62	5.78	0.08

Note: Relative risk indicates how high ACEs were associated with adolescent distress profiles within the control and intervention groups. + $p < .10$, * $p < .05$

Table 2.*Relative Risk of School Bonding Latent Profile Membership*

Sample	Comparison	Relative Risk	Lower Bound	Upper Bound	p
High ACES (No Intervention)	Average vs Weak Bond	.13*	.06	.30	0.02
	Strong vs Weak Bond	.08*	.03	.18	0.00
	Strong vs Average Bond	.58	.35	.97	0.29
High ACES (Intervention)	Average vs Weak Bond	11.62*	3.79	35.66	0.03
	Strong vs Weak Bond	17.81*	5.62	56.49	0.01
	Strong vs Average Bond	1.53	.79	2.97	0.52

Note: Relative risk indicates how high ACES were associated with adolescent distress profiles within the control and intervention groups. * $p < .05$