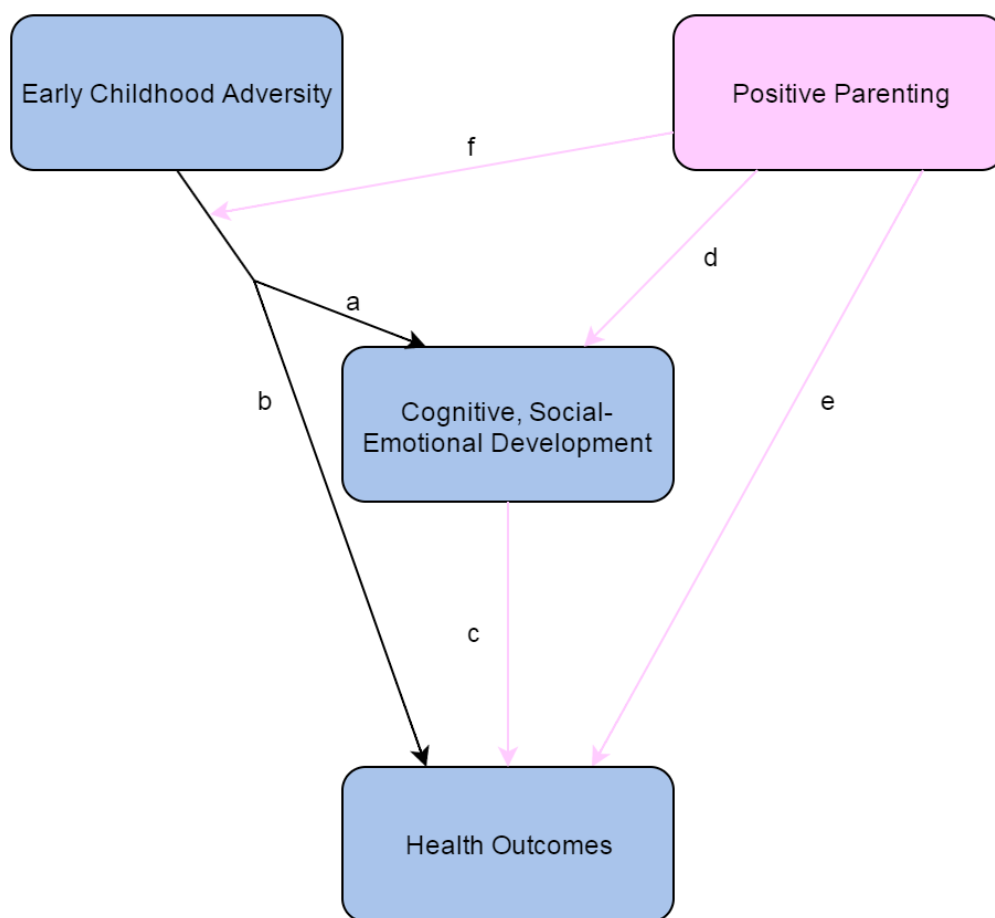




Why Parenting Matters to Pediatricians

1. Positive parenting and strong parent-child relationships improve health and development throughout the lifespan, and can buffer against the negative effects of early childhood adversity



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- a: Early adversity undermines early child development
 - b: Early adversity leads to poor health outcomes
 - c: More optimal development in early childhood predicts improved health outcomes
 - d: Positive parenting behaviors promote early child development
 - e: Positive parenting behaviors lead to improved health outcomes
 - f: Positive parenting behaviors buffer against early adversity
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a: Early adversity undermines early child development

- Low family socioeconomic status (parental income and education) predicts poorer cognitive and socioemotional development.^{1,2}
- Early adversity is reflected in stress response physiology as early as infancy.³ Low socioeconomic status increases adrenergic and glucocorticoid responses to threat, which in turn undermines executive function skills, promotes hyperactivity, and increases allostatic load.⁴
- Lower socioeconomic status in childhood predicts smaller brain surface area, lower cortical and subcortical gray matter, lower cortical thickness in the right anterior cingulate gyrus and left superior frontal gyrus, and slower growth of the frontal lobes (all areas related to memory, executive control, and emotion).^{5, 6,7}

b: Early adversity leads to poor health outcomes

- Chronic stress in childhood alters monocyte and macrophage behavior to produce chronic inflammation, a risk factor for metabolic syndrome, heart disease, stroke, and some cancers.⁸
- Early adversity is associated with poorer child health status.^{9,10}
- Early adversity predicts lower grey matter volume in the anterior cingulate cortex (an area related to cognition) during adolescence.¹¹
- Early adversity predicts adult obesity, smoking and alcohol use, sleep, pulmonary function, and psychopathology.^{12,13,14,15,16}
- High maternal stress in infancy predicts greater DNA methylation in adolescence.¹⁷
- Low socioeconomic status in childhood predicts teenage childbearing¹⁸ and adult depression,¹⁹ smoking,²⁰ physical inactivity,²¹ cardiovascular disease,²² and all-cause mortality.^{23,24}

c: More optimal development in early childhood predicts improved health outcomes

- Higher cognitive ability at school entry predicts less depression and psychosis in adulthood.^{25,26}
- Early secure attachment to parents predicts lower anxiety and depression in adulthood.²⁷
- Better self-regulation at age 7 is linked to lower C-reactive protein, less addictive behavior, and lower cardiovascular risk in adulthood.^{28, 29, 30}

d: Positive parenting behaviors promote early child development

- Parenting that is sensitive (responds accurately and quickly to children's verbal and non-verbal signals), particularly when children are distressed, predicts fewer behavior problems and higher cognitive scores in early childhood.^{31,32,33}
- Parenting that promotes autonomy (allows children to make choices and helps them master challenges) predicts better cognitive functioning at age 2.³⁴
- Parents' emotional support during cognitive tasks promotes learning by averting stress, which depletes children's attention.^{35,36,37}
- Parents influence their child's cognitive development through their use of language, provision of learning materials, and performance of stimulating activities.^{38,39,40}
- The child-parent relationship forms a blueprint for all subsequent relationships. Children learn whether they are worthy of love and whether other people can be trusted, which influences the degrees to which they explore their environment and seek help from others, both of which promote cognitive and socioemotional growth.⁴¹

e: Positive parenting behaviors lead to improved health outcomes

- Greater maternal sensitivity is associated with less stress reactivity in the HPA axis, parasympathetic, and sympathetic systems.^{42,43,44}
- Parenting style is associated with childhood obesity⁴⁵ and asthma.⁴⁶
- Parents role model health behaviors for their children, and their children copy those behaviors, for better (e.g., fruit/vegetable intake⁴⁷) or worse (e.g., smoking⁴⁸).
- Good health in childhood sets a trajectory for good health in adolescence and adulthood.⁴⁹

f: Positive parenting behaviors buffer against early adversity

- Children with low socio-economic status develop fewer behavior problems if their mothers are more supportive.^{50,51}
- Children who are exposed to inter-parental violence are less likely to develop asthma symptoms if their mothers participate in more caregiving activities.⁵²
- Among children exposed to early adversity, those with more responsive mothers have less telomere shortening.⁵³

2. Interventions can help parents to alter their parenting styles

- Parenting behaviors can change. The following are some of the interventions have been proven effective at changing parenting behaviors: the Nurse-Family Partnership,⁵⁴ the Attachment and Behavioral Catch-up (ABC) Intervention,⁵⁵ the Triple P Parenting Program,⁵⁶ and the Video Interaction Project (VIP).⁵⁷
- A meta-analysis of primary care-delivered interventions found that they significantly improve parenting practices that promote early development in the first 3 years of life.⁵⁸

3. Pediatricians can and should play a key role in improving parenting

- Pediatricians are a trusted source, have access to patients, and have early touchpoints with development.
- Interventions that occur early in the life course have a higher yield at a lower cost because early development is particularly plastic, because early differences widen over time (due to self-reinforcing feedback loops), and because prevention costs less than treatment.^{59,60}
- Parents want their pediatricians to address socioemotional development and parenting.^{61,62} In one nationally representative sample, 54% parents wanted more specific information from a health professional on how to encourage learning.⁶²

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