




Striving to Promote Early Relational Health and Child Development in the Healthcare Space
A Primary Preventive Model

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To transform the way pediatric healthcare is delivered by maximizing opportunities to promote strong parent-child relationships and early childhood development within everyday healthcare interactions.




DISCLOSURES AND CONFESSIONS

I have no financial disclosures or conflicts of interest with the material presented.

- As a new clinician, I sometimes made up parenting advice.
- As a parent, it can be hard to practice what you preach.
- As a provider, I find it difficult to fit in all there is to cover in a well child visit.

OBJECTIVES:
By the end of this session, you should be able to:

- ❖ Recognize the impact of safe, stable, nurturing relationships on children's development, health and ability to buffer adversity
- ❖ Discuss, model, and praise specific parenting behaviors that promote the "keystone" principles of attachment, autonomy, and self-regulation
- ❖ Identify resources to help promote positive caregiving behaviors and child development in clinical practice and medical education

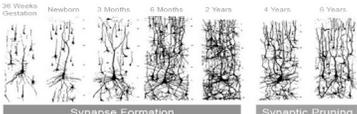
RESEARCH HAS SHOWN ...

Positive parenting behaviors lead to improved child health outcomes.

-  Scientific literature now recognizes **parenting** as a near-universal determinant of social, economic, and health outcomes.
-  Early negative experiences and relationships with parents change the expression of genes and can modify a child's development and health in profound ways.
-  Pioneering research is identifying specific parenting behaviors that are associated with improved outcomes and **reduced risk of diseases** such as asthma, obesity, diabetes and heart disease.

EARLY BRAIN DEVELOPMENT



In the first few years of life, more than **1 million new neural connections** are formed every second!

Source: Image created based on work of Harvard University Center for the Developing Child

Mount Sinai Planning Center

EARLY PARENTING ENVIRONMENT
 Early parenting environment can program a child's future mental and physical health

ENVIRONMENTAL EXPOSURES TO TOXIC STRESSORS
 Environmental stressors such as poverty, violence, and neglect can lead to DNA methylation changes that alter gene expression.

ENVIRONMENTAL CHANGES
 Environmental changes such as improved nutrition, reduced stress, and increased social support can lead to DNA demethylation, which can reverse some of the effects of toxic stress.

TOXIC STRESS
 Toxic stress alters the methylation of genes and these epigenetic changes increase risk of illness and disease.

Source: NIH Common Fund

Mount Sinai Planning Center

EARLY PARENTING ENVIRONMENT
 Positive Childhood Experiences Mitigate the Effects of ACEs

Percentage of U.S. children ages 6-17 who were flourishing by Family Resilience and Connection Index (FRC) score, stratified by the number of ACEs

Number of ACEs	Percentage of Flourishing Children
0 ACEs	26.8%
1 ACE	20.5%
2-3 ACEs	14.2%
4-9 ACEs	8.1%

Positive Childhood Experiences have a greater effect than ACEs on whether children flourish.

Bethel et al., 2019

Mount Sinai Planning Center

AAP POLICY STATEMENT

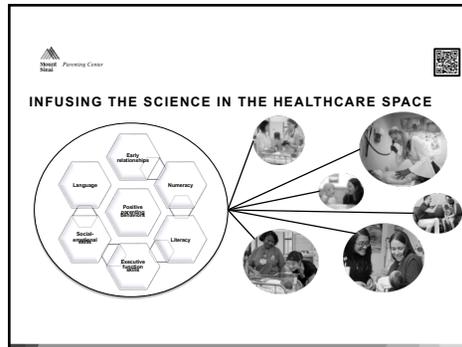
Preventing Childhood Toxic Stress: Partnering With Families and Communities to Promote Relational Health

“The American Academy of Pediatrics asserts that **SNRs [safe, stable, nurturing relationships] are **biological necessities** for all children because they **mitigate childhood toxic stress** responses and **proactively build resilience** by fostering the adaptive skills needed to cope with future adversity in a healthy manner.”**

“By focusing on the safe, stable, and nurturing relationships (SNRs) that buffer adversity and build resilience, pediatric care is on the cusp of a paradigm shift that could **reprioritize clinical activities, rewrite research agendas, and realign our collective advocacy.”**

How do we do more than just identify delays and deficits in our primary care visits?

How do we promote early relational health and child development universally in primary care?



This section includes the 'Mind Family Center' logo and a QR code. The title is 'OUR RESOURCES'. Below the title are six resource cards arranged in a 2x3 grid:

- Prevention of Developmental Delays:** Includes a QR code and text about early identification and intervention.
- Connect for Your Healthcare:** Includes a QR code and text about connecting with healthcare providers.
- sparks:** Includes a QR code and text about early childhood development.
- Early Learning and Parental Involvement:** Includes a QR code and text about supporting children's learning.
- Parent Handbook:** Includes a QR code and text about supporting children's development.
- Research Collaborations:** Includes a QR code and text about research partnerships.




KEYSTONES OF DEVELOPMENT








Trust Attachment Self Regulation Resilience Family Literacy

A free, 4-hour online curriculum that integrates the promotion of positive parenting behaviors into routine well-child visits.

- Well supported by research
- Largely dependent on parent behaviors
- Able to be promoted through teachable moments
- Strongly predictive of later well-being



Secure Attachment




SECURE ATTACHMENT

A positive view of self and others and relationships based on the early experience of feeling loved, safe, protected by the primary caregiver, who serves as a "secure base" from which an infant can explore. This is a dynamic process and can improve throughout life.

- ❖ Dynamic – develops over time – involves repair
- ❖ Universal and yet can appear different
- ❖ Buffers adversity

SECURE ATTACHMENT

STUDY *"Minnesota Longitudinal Study of Risk and Adaptation,"*
Cohort study done by Institute of Child Development, University of Minnesota.

METHOD Followed over 200 babies from at-risk families for almost 40 years.

RESULTS Securely attached children were more likely to have a better sense of **self reliance, better emotion regulation, social competence, higher self worth and higher academic success.**

Researchers were able to predict who was most likely to drop out of high school based on the early attachment relationship at age three.

PARENTING BEHAVIORS THAT PROMOTE ATTACHMENT

- ❖ Warm, sensitive and reciprocal interactions between a parent and infant dyad
- ❖ Predictable and stable responses from caregiver

PROMOTING ATTACHMENT

Keystones of Development

Newborn, 1 Month, 2 Month Video

<https://youtu.be/fgJoYTct4ps>

sparks

A parent video series designed to deliver standardized and high-quality anticipatory guidance that promotes positive parenting and early childhood development to all parents of children birth to age 5 through their healthcare provider

CONNECTING WITH YOUR NEWBORN

Parent Video Series
3-5 Day Visit

<https://youtu.be/Dn9bgjmRY1A>

CHILDREN'S INNER VOICE

Parent Video Series
4 Year Visit

<https://youtu.be/EzWQ1A4VG8U>

PROMOTING ATTACHMENT IN THE CLINICAL SETTING

- ◆ **Discuss:**
 - ◆ Skin to skin – “Your touch teaches your baby”
 - ◆ “You can’t spoil a baby”
 - ◆ Noticing cues and responding to them
 - ◆ Hugs, high fives, showing delight, time-ins, reading
 - ◆ Catching your child being good
 - ◆ Avoid shaming older children
- ◆ **Model:**
 - ◆ Warm, positive affect, showing delight
 - ◆ Back and forth interactions, using parentese
- ◆ **Praise what you observe...**
 - ◆ “He calms down so nicely when he snuggles with you”
 - ◆ “Those hugs and kisses are so great for his development and actually help build his brain.”

PROMOTING ATTACHMENT IN THE CLINICAL SETTING

NEWBORN, 1 MONTH, 2 MONTH	4 MONTH, 6 MONTH, 9 MONTH	12 MONTH, 15 MONTH, 18 MONTH
<ul style="list-style-type: none"> ◆ Consider the parent for parental attachment ◆ Focus on the parent's attachment to the child ◆ Focus on the parent's attachment to the child ◆ Focus on the parent's attachment to the child 	<ul style="list-style-type: none"> ◆ Focus on the parent's attachment to the child ◆ Focus on the parent's attachment to the child ◆ Focus on the parent's attachment to the child ◆ Focus on the parent's attachment to the child 	<ul style="list-style-type: none"> ◆ Focus on the parent's attachment to the child ◆ Focus on the parent's attachment to the child ◆ Focus on the parent's attachment to the child ◆ Focus on the parent's attachment to the child 
<p>2 YEAR, 2 1/2 YEAR, 3 YEAR</p> <ul style="list-style-type: none"> ◆ Focus on the parent's attachment to the child ◆ Focus on the parent's attachment to the child ◆ Focus on the parent's attachment to the child ◆ Focus on the parent's attachment to the child 	<p>4 YEAR AND 5 YEAR</p> <ul style="list-style-type: none"> ◆ Focus on the parent's attachment to the child ◆ Focus on the parent's attachment to the child ◆ Focus on the parent's attachment to the child ◆ Focus on the parent's attachment to the child 	

Autonomy

AUTONOMY

A child's sense that they are able to use their own skills in thinking and behaving.

- ❖ Explore and learn from the environment
- ❖ Confidence to take risks
- ❖ Fulfills a basic need
- ❖ Necessary to have intrinsic motivation

WHAT PARENTING BEHAVIORS PROMOTE AUTONOMY?

Autonomy Supportive Parenting...

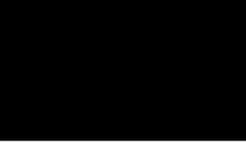
- ❖ Let children do for themselves what they **CAN** do
- ❖ Guide and encourage children to try and do what they can **ALMOST** do
- ❖ Teach and model behavior that they **CANNOT** yet do

PROMOTING AUTONOMY: KEYSTONES

Keystones of Development

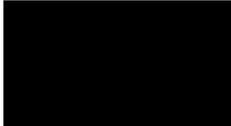
4 Month - 6 Month
9 Month Video



<https://youtu.be/rIhS46t2vus>

 **PROMOTING AUTONOMY: SPARKS**

Parent Video Series
15 Month Visit



<https://youtu.be/79br6phFmHM>

 **PROMOTING AUTONOMY: PARENT HANDOUTS**

Parent Handouts

15 MONTH VISIT		2 YEAR VISIT	
1. ASSESS	Assess the child's current level of autonomy and the parent's perception of the child's autonomy.	1. HISTORY	Review the child's history of autonomy and the parent's perception of the child's autonomy.
2. ASSESS	Assess the parent's perception of the child's autonomy and the parent's perception of the parent's own autonomy.	2. HISTORY	Review the parent's history of autonomy and the parent's perception of the parent's own autonomy.
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 **PROMOTING AUTONOMY IN THE CLINICAL SETTING**

Discuss:

- ◆ Tummy time
- ◆ Creating a "yes" environment
- ◆ Using the word "explore"
- ◆ Allowing child directed play
- ◆ Encouraging the child to help with routines (put on coat)

Model:

- ◆ Asking patient questions
- ◆ Giving choices
- ◆ Asking patients for their thoughts on how to do things (i.e. how do you think you could be healthier in your eating?)
- ◆ Asking parents questions about what they think works best for their child

Praise what you observe...

- ◆ "It is so great how you allow her to explore the room"
- ◆ "Thank you for letting her answer my questions"

Self-Regulation/ Executive Function Skills

SELF-REGULATION

The child's increasing skill in managing their emotion, behavior, and attention in order to achieve goals.

- ❖ Allows children to:
 - ❖ Plan
 - ❖ Focus
 - ❖ Hold information in their mind while they use it (working memory)
 - ❖ Juggle multiple tasks successfully (cognitive flexibility)
- ❖ The brain needs these skills to:
 - ❖ Filter distractions
 - ❖ Prioritize tasks
 - ❖ Set and achieve goals
 - ❖ Control impulses (inhibitory control)

These skills are crucial for school readiness and life success.

HOW DOES SELF-REGULATION DEVELOP?

We are not born with these skills, but we are born with the capacity to develop them through the right experiences and practice.

Prefrontal Cortex
Amygdala

Prefrontal Cortex=Wizard Brain
Complex mental processing, empathy, judgement

Amygdala/Limbic System=Lizard Brain
Fight or flight, acts on emotions and instincts
How do we encourage "connections" between the two areas?

SELF-REGULATION

STUDY Mischel, Walter, et.al, "Delay of Gratification in Children." Science, 244 (4907), pp. 933-938

METHOD Administered variety of tests in laboratory to 4 year olds using marshmallows in effort to measure early **self control**.

RESULTS Those 4-year-old children who **delayed gratification longer** had higher educational attainment, higher SAT scores, reduced risk of drug use, improved self esteem and were less likely to exhibit aggressive behaviors.

WHAT PARENTING BEHAVIORS PROMOTE EXECUTIVE FUNCTION SKILLS AND SELF-REGULATION?

To help with Behavioral, Emotional, Attentional Self-Regulation

- ❖ Labeling emotions and allowing emotions
- ❖ Sensitive caregiving
- ❖ Promoting autonomy and scaffolding
- ❖ Consistent routines and healthy sleep
- ❖ Identifying and avoiding triggers for distraction
- ❖ Offering and rewarding delayed gratification reliably
- ❖ Positive discipline
- ❖ Impulse control games (Simon says, freeze dance, red light/green light)
- ❖ Mindfulness

PROMOTING SELF-REGULATION: KEYSTONES

Keystones of Development
12 Month, 15 Month, 18 Month

<https://youtu.be/RjMdKG3rHhc>


SPARKS: SETTING LIMITS & TAKING A BREATH


Parent Video Series
 15 Month Visit

<https://youtu.be/ScXnKyD8TtI?feature=shared>


PROMOTING SELF-REGULATION IN THE CLINICAL SETTING


Discuss:

- ◆ Creating routines
- ◆ Positive discipline strategies
 - ◆ Pausing – responding instead of reacting
 - ◆ Positive opposites
 - ◆ Paying more attention to wanted behaviors
 - ◆ Logical consequences
- ◆ Co-regulation – emotions are contagious
- ◆ Using games like freeze dance, Simon says, red light-green light

Model:

- ◆ Labeling emotions (“name it to tame it” - all emotions are ok, all behaviors are not)
- ◆ Model transition objects like a pacifier
- ◆ Mindfulness activities

Praise:

- ◆ Good routines, good sleep habits, positive opposites


2018-2019 PILOT STUDY

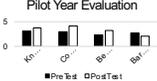



108 residents completed the curriculum
 67 residents completed pre/posttest
 23% increase in Knowledge
 37% increase in Confidence
 35% increase in Behaviors
 20% reduction in Perceived Barriers


Evaluating the Keystones of Development - An Online Curriculum for Residents to Promote Positive Parenting in Primary Care

doi:10.1093/pediatrics/kpaa001 | Pediatrics 2019; 123(5):e20190011

Pilot Year Evaluation



Category	Pre Test	Post Test
Knowledge	~1.5	~3.5
Confidence	~1.5	~4.5
Behaviors	~1.5	~4.5
Barriers	~1.5	~0.5

 **OUR REACH**



189 pediatric programs
277 family medicine programs

 **ADDITIONAL RESOURCES**



Keystones of Development mobile app
Continuing Medical Education credit
Tip of the Week
Summary Sheets

 **ADDITIONAL Keystone Trainings:**

- Discipline
- Sleep
- Toilet Training




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We know that you have a lot to do and we want to make sure you have the information you need to get the most out of Sparks. We've created a variety of user guides to help you get started and keep going.

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We're here to help you succeed.


INCORPORATING INTO PRACTICE






Electronic medical record templates

Flyers

Handouts


vrOm in Healthcare


Saturate physical spaces and train staff to leverage everyday healthcare moment







vrom™

An early learning initiative from the Bezos Family Foundation.



Vroom is bringing the science of early childhood development into the hands of parents.



Vroom Tips give parents effective, easy ways to promote learning and build relationships with their child, turning everyday interactions into brain building moments.





We all have our moments with families
 Each interaction can have an impact







You are **already** promoting early relationships and child development!

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Enhancing Moments

Empowering families with each interaction

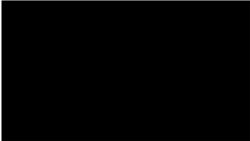
Each Interaction Presents an opportunity to:

- Discuss
- Model
- Praise
- Invite



 Mason University


ENHANCING OUR HEALTHCARE MOMENTS

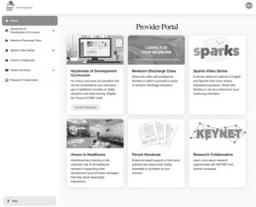


<https://youtu.be/CYZ-a-QyKKA>

 vidom

 Mason University


OUR RESOURCES



Provider
Resources

Email: keystones@mssm.edu




We are excited to share, collaborate, & support

Keystones, Sparks, and all our resources are available for you!

- Discuss/Model/Praise in your practice and your teaching
- Parent Handouts/Resident summaries
- Additional modules (toilet training, etc.) with handouts
- Tip of the week

We are excited to collaborate!

Join our other trainings to expand the learning:




Let us know how we can support you!

- Monthly Keystone Forum
- VROOM + Healthcare Staff Training

Staff training sign-up Monthly forum sign-up

Research is possible through KEYNET!




WE HAVE OPPORTUNITIES...

The Power of Words

Your words stay with a family long after you say them.



Moments Matter

Use your everyday moments to help build strong families.