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# The future of (early) learning is relational

*by Isabelle C. Hau*

Early Head Start – Summer Series  
June 1, 2022

# Uvalde, TX - Head Start

Nino's De Cristal Head Start

Avance Head Start

Old Town Head Start

Wintergarden Head Start



CDI Head Start

## A few words about me
















- Participated in all HeadStarter innovation conferences since 2015; other national NHSA/Head Start conferences & report contributions
- Visited Head Start / Early Head Start centers in at least 25 states



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## Some quotes

“In order to develop normally, a child requires progressively more complex joint activity with one or more adults who have an irrational emotional relationship with the child. Someone’s got to be crazy about that kid. That’s number one. First, last and always.”

-- Urie Bronfenbrenner

“Relationships are the agents of change and the most powerful therapy is human love.”

-- Bruce D. Perry

“Whether the burdens come from the hardships of poverty, the challenges of parental substance abuse or serious mental illness, the stress of war, the threat of recurrent violence or chronic neglect, or a combination of factors, the single most common finding is that children who end up doing well have had at least one stable and committed relationship with a supportive parent, caregiver or other adult.”

-- National Scientific Council on the Developing Child

# **Relationships are our greatest asset for little ones to learn and thrive, yet the most under-leveraged**

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**I. The science: relationships are essential for learning, thriving, and more**

II. The practice: our relationship crisis - 1 in 3 young child do not have a caring adult relationship, and it is getting worse

III. Looking forward: the future of (early) learning is relational

# Relationships matter for human survival

## A few extreme experiments

Frederick II

Language acquisition



Harry Harlow

Pit of Despair



Stuart Grassian

Solitary Confinement

- Harvard psychiatrist documented a psychiatric syndrome from solitary confinement (progressive inability to tolerate ordinary things, such as the sound of plumbing; hallucinations and illusions; severe panic attacks; difficulties with thinking, concentration, and memory; obsessive, sometimes harmful, thoughts that won't go away; paranoia; problems with impulse control; and delirium).
- The United Nations considers solitary confinement exceeding 15 days to be **torture**



# Relationships matter for brain development and learning

## Romanian orphanages



In the Institute for the Unsalvageable in Sighetu Marmatiei, Romania, shown here in 1992, children were left in cribs for days on end.

*Tom Szalay*

# Relationships matter for brain development and learning

## Romanian orphanages

### Lesson #1 – Lower brain volume and power resulting from emotional deprivation

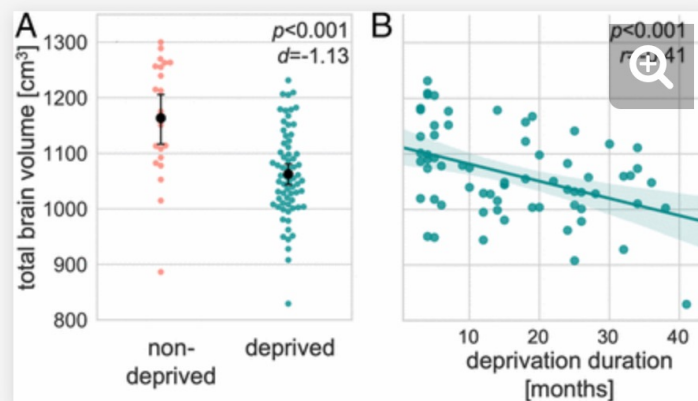


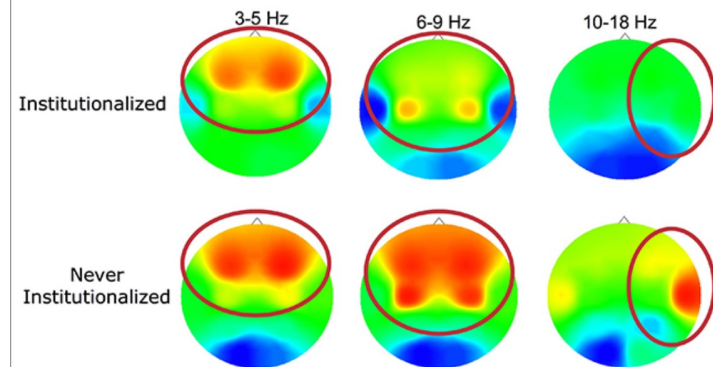
Fig. 1.

[Download figure](#) | [Open in new tab](#) | [Download powerpoint](#)

Deprivation-related differences in TBV. (A) Point and swarm plot depicting distributions of TBV in deprived and nondeprived groups ( $n = 88$ ). Black whiskers show 95% CIs around the means (black dots). (B) Negative correlation between deprivation duration and TBV ( $n = 67$ ). The shaded area depicts the 95% CI around the regression line. These analyses were adjusted for the effects of sex. Effect sizes were calculated with Cohen's  $d$  and Pearson's  $r$ .

Source: Kings College study; Edmund Sonuga-Barke lead researcher

#### Extreme Neglect Diminishes Brain Power



The brain's activity can be measured in electrical impulses—here, "hot" colors like red or orange indicate more activity, and each column shows a different kind of brain activity. Young children institutionalized in poor conditions show much less than the expected activity. Source: C.A. Nelson (2008); Marshall, Fox, & the BEIP Core Group (2004).



# Relationships matter for brain development and learning

## Romanian orphanages

### Lesson #2 – Most adversity effects can be overcome in stable family environments: The Bucharest Early Intervention Project

Children were randomly assigned in two groups of (1) institutional care; and (2) high-quality foster parents vetted and trained.

Group (2) experienced:

- ✓ Higher IQ (held true over time 8 years into the experiment)
- ✓ Better language development
- ✓ More secure attachment
- ✓ Fewer signs of emotional problems
- ✓ **The earlier the better – especially before age 2**

Group (1) had altered stress physiology – higher ADD; telomere shortening and faster cellular aging

# Relationships matter for brain development and learning



## We are wired for connections

- Different from other animals, human babies depend on other humans for survival and development until ~12 year old.
- Human brains are suited to detect someone who might or might not be trustworthy.
- Our “default network” – the circuits of the brain that are constantly on - are relational.
- Connection with parent, and especially mother – attachment theory (Bowlby/Ainsworth) and “bio-behavioral synchrony”
- Empathy to others: Studies show that toddlers will voluntarily give their blanket with someone who is cold or share a toy with someone who is sad. 14-month olds will help someone retrieve an object out of reach.

## Human connections can be primed

- 18-month olds 3x more likely to perform helpful behaviors to a doll if background picture shows dolls face-to-face, as opposed to back-to-back.

# Relationships matter for health, well-being & longevity

## Blue Zones



- Okinawa has the highest number of people >100 in the world, 4x more than the US
- Why?
  - “Yuima-ru”: interconnected “circle” of humans
  - “Moais”: support groups of five to 10 friends formed in the early years and for life

## Harvard Study Of Adult Development

- 80-year longitudinal study has collected many data on factors that help people live long and fulfilling lives
- Conclusion: “People who are more socially connected to family, to friends, to community are happier, they’re physically healthier, and they live longer than people who are less well connected”  
--Robert Waldinger – TED Talk

## Loneliness Studies

- Loneliness =
  - Reduce immune function
  - Increase inflammation
  - Increase chances of dying
- Lack of social connections = increased mortality equivalent to **smoking 15 cigarettes/day**
- Connections =
  - Increased motivation (e.g., if people are told they share same birthday, they persist longer on math problem)
  - Delay cognitive decline and dementia by as much as 70%

## Relationships matter for resilience to adversity

- Emmy Werner conducted a 32-year longitudinal study of 698 infants on the Hawaiian island of Kauai —the island's entire birth cohort for the year
- 1/3 of all high-risk children displayed resilience and developed into caring, competent and confident adults despite their problematic development histories
- Protective factors: a strong bond with a parent or a nonparent caretaker (such as an aunt, babysitter, or teacher) and involvement in a church or community group
- More research has been conducted - connecting attachment and resilience



# Relationships matter for resilience to stress

A big moment: AAP highlights relational health to mitigate childhood toxic stress in 2021

The screenshot displays the AAP website interface. At the top, the AAP logo and navigation links like 'shopAAP' and 'Create Account' are visible. Below the header, the 'PEDIATRICS' journal title is prominent, followed by a navigation bar with links for 'Content', 'Authors/Reviewers', 'Collections', 'Multimedia', 'Blogs', and 'Subscriptions'. The main content area features the article title 'Preventing Childhood Toxic Stress: Partnering With Families and Communities to Promote Relational Health' by Andrew Garner, MD, PhD, FAAP, and Michael Yogman, MD, FAAP. The article is dated August 2021. Below the title, there is a section for 'POTENTIAL CONFLICT OF INTEREST' and 'FINANCIAL DISCLOSURE'. The article is available in PDF format, and there are links for 'Split-Screen', 'Views', 'PDF', 'Share', and 'Tools'. The article content begins with 'By focusing on the safe, stable, and nurturing relationships (SSNRs) 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. Driving this transformation are advances in developmental sciences as they inform a deeper understanding of how early life experiences, both nurturing and adverse, are biologically embedded and influence outcomes in...'

But, call to action on relationships needs to expand beyond health/pediatrics to parents, education and community stakeholders



# Relationships matter for school performance

## Michigan Schools

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- Over 5,000 students and teachers in 78 randomly selected elementary schools in Michigan, asked to fill a questionnaire “parents involvement supports learning here”; “teachers in this school trust their students”; “community involvement facilitates learning”
- Social capital (network of relationships between schools/teachers, parents and community) had a **3-5x larger effect** than financial capital on reading and math scores
- Social capital was more important than school’s poverty, ethnic makeup or prior achievement

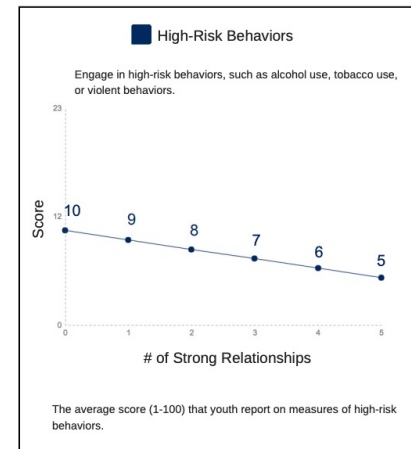
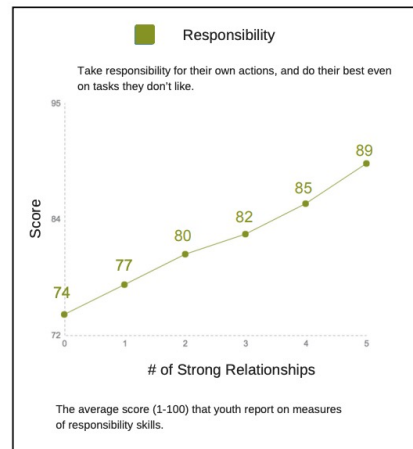
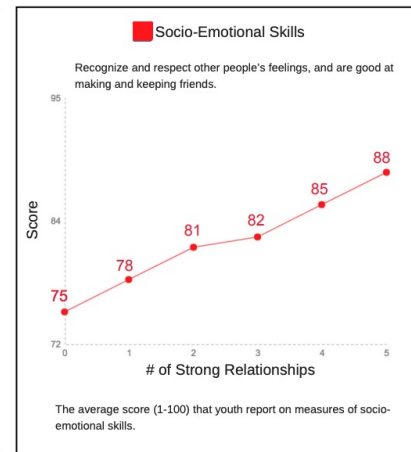
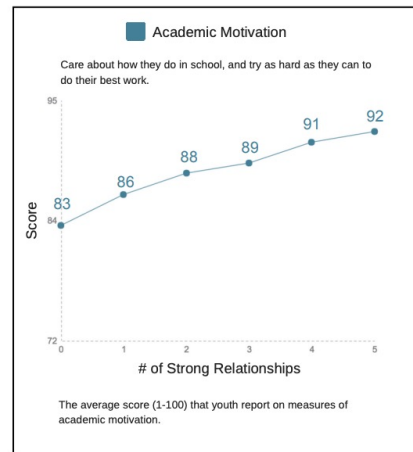
## Head Start

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- Families assigned in 3 groups:
  1. Treatment group 1- Families assigned to a neighborhood classroom, one in which all children were residents of the same neighborhood. Parents were informed that children were of the same neighborhood
  2. Treatment group 2 - Families assigned to a neighborhood classroom; in addition, the center held a few social gatherings at the beginning of the year to allow parents to select an “attendance buddy”. 50% families did so.
  3. Control group - Families were assigned to a classroom as the center normally had
- Results:
  - Social capital increased in group 2 by about 1 person, from a baseline number of about 3 people.
  - Parents in either treatment group more likely to ask for help.
  - Moderate increase in child attendance.

# Relationships matter for learners' school readiness & performance

The more, the better



**Source:**  
Search Institute. *Relationships First*. 2017.

# Relationships matter for little learners

The earlier, the better

## 24 months?

Romanian orphanage research suggests some major differences at 6 months and 24 months.

## 2 months?

“The child who has only two months of really bad experiences [from birth] does worse than the child with almost twelve years of bad experiences [at a later stage], all because of the timing of the experiences.” Dr Bruce Perry

## Key takeaways

- Science is clear that relationships are critical for humans' survival and for humans to thrive
- At least one safe caring adult relationship matters and can make a difference in resilience, learning, well-being and life outcomes for little learners
- This caring relationship does not have to be with a birth parent. Teachers often play a critical role
- More relationships, the better, but start with one
- Early matters, very early
- Our world is increasingly inter-dependent and inter-connected

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**Where are we on relationships surrounding our little learners?**

**Our relational crisis**

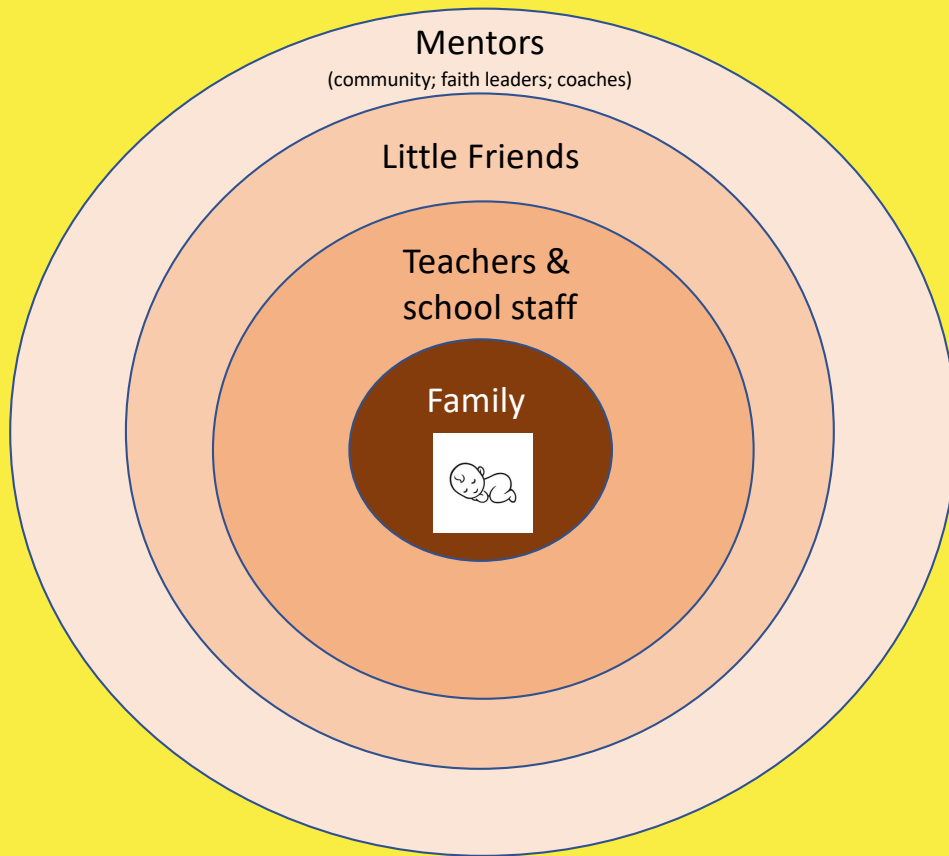
Breadth: How many

Depth: How close and how positive

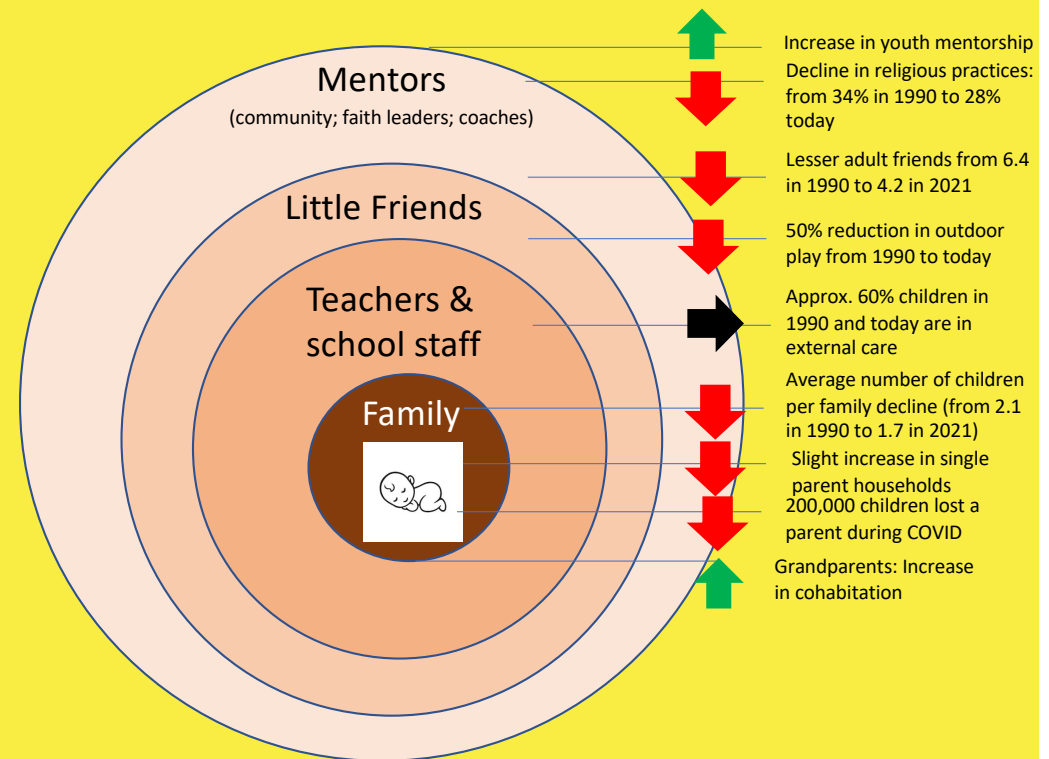
# Breadth of relationships

The circle of relationships around young children is getting smaller

1990



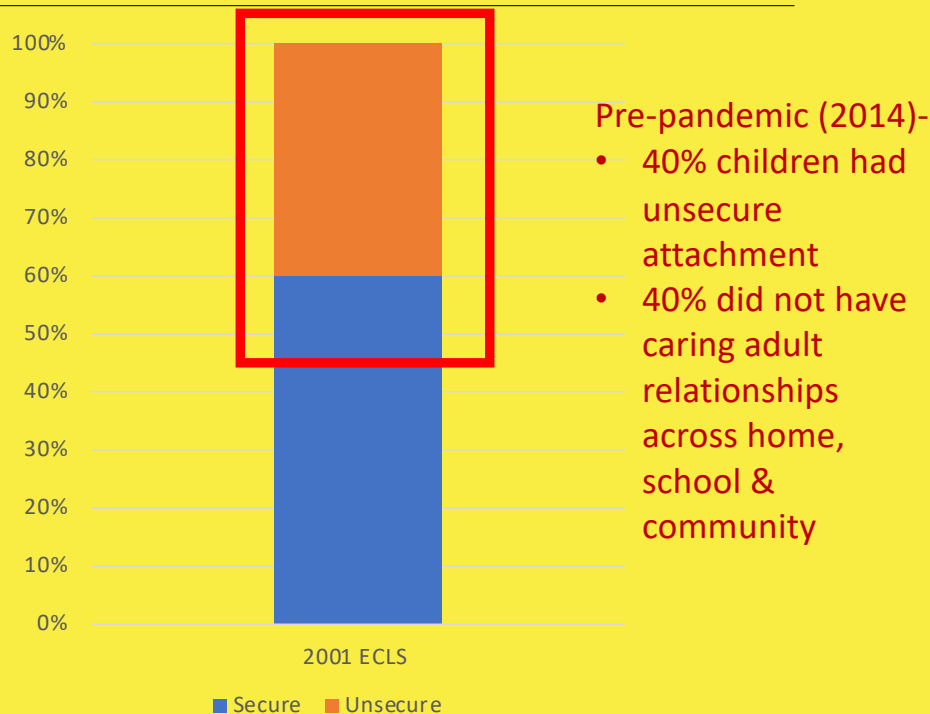
2022



## Depth of relationships

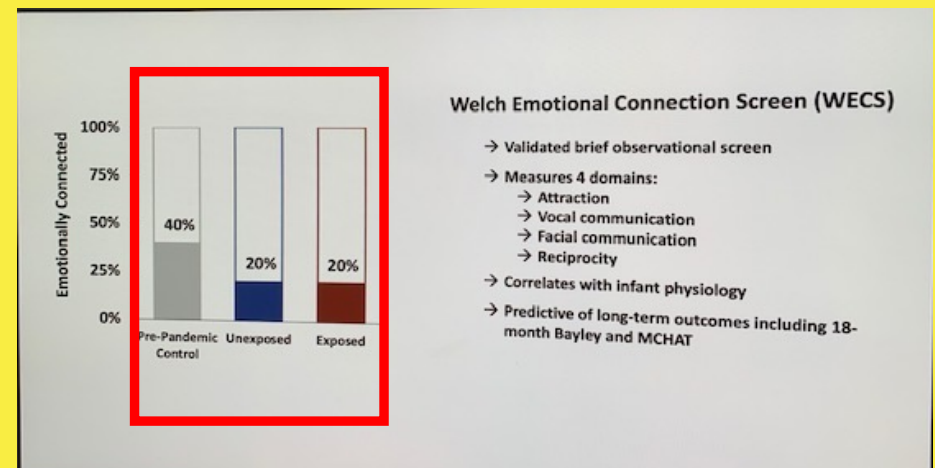
While more time was spent home, pandemic stress resulted in lower emotional connections

### Pre-COVID - Baby Secure Attachment



Source: [Princeton study](#), 2014.

### Pandemic effect - Emotional Connections



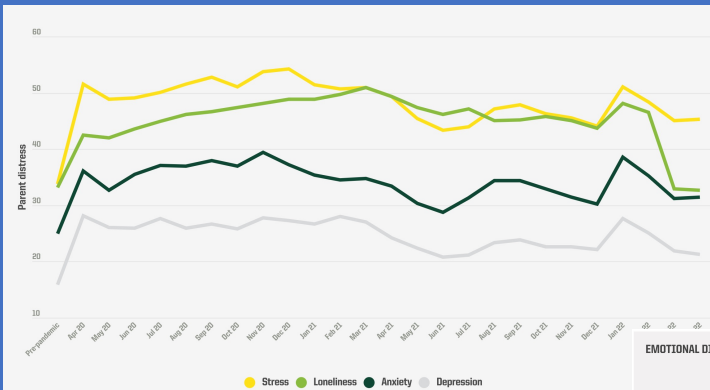
Source: COMBO study, August 2021.

# Why?

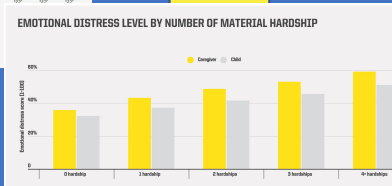
## Barriers to caring relationships are multi-pronged

### Individual / Inter-personal

- Stress & mental health connected with attachment—nearly 50 million American adults experienced mental illness in 2019 and pandemic exacerbated
- Parents' emotional distress connected with child's emotional distress ; same goes with teachers and children



- Experience with trauma affects relationships
- Technology usage also does



### Societal

- Inequality
- Isolation
- Social segregation
  - Racial segregation: 40% of white do not have a non-white friend
  - Age segregation: 5% of youth has ever interacted with adults above 65 who are not family members
- Birthing trends

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# Relationship-Centered Parenting

## Future is in groups

### Centering Health



### UpTogether



guardians  
collective

## Families are supported

Family leave

Anti-poverty measures (e.g., child tax credits, guaranteed income)

Expanded access to quality child care

Well-being and mental health supports

## Relational parenting

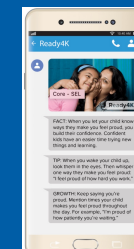
### LENA



### Training Grounds



## Technology is leveraged for good / family activities



# Relationship-Centered Schools

## WHAT IS A RELATIONSHIP CENTERED SCHOOL?

Students of color define Relationship Centered Schools as ones that:

- 1 Unite social emotional learning and academics
- 2 Ensure all students reach their full potential regardless of race or zip code
- 3 Provide staff with the capacity and conditions to connect with students
- 4 Address trauma, build resilience, and confront bias to create healthy relationships
- 5 Lead together with students, parents and staff working towards a shared vision



Invest in staff

Create space for  
relationship  
building (among  
parents, learners/staff, among  
staff, among learners)

Value young  
learner and  
family voice and  
engagement

# Relationships Among Little friends

## (1) More free play:

### **Massive benefits of play**

- SEL, academic, physical, etc.

### **Yet, play is declining**

- More screen time
- Less time spent outdoor

### **And, play is inequitable**

- Less recess in lower-resources schools

(2) What about an American version of Moais? Groups of children and families from the early years of life?



# Relationship-Centered Communities



Gen-Xchange (UCLA) and Experienced Corps in elementary demonstrated to have major benefits



Care Corps of 1 million grand-adults supporting early care and education



Tangelo Park Program



## One final quote

“Nothing has more impact in the life of a child than positive relationships.”

-- Search Institute (2017)



# Thank you

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