

Parents that Play Lower Stress and Cortisol Levels: A Tale of 4 Resilient Families

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Background & Introduction

Toxic Stress is Dangerous:

- Negative Experiences have Profound Impacts children on Especially During Critical Brain Development
- Chronic Negative Experiences *without* Adult Support results in Toxic Stress
- Toxic Stress Leads to Harmful Levels of Cortisol ("Stress Hormone") Activity
- Caring, Supportive Adult-Child Relationships *Buffer* Impact of Toxic Stress & Cortisol: Balances the Stress Response System and Builds Resiliency

Current Intervention Trends:

- Parent Education on Toxic Stress are focused on Explicit Processes and Raise Parent Stress

How Can We Approach Already Stressed Parents, and Ask to Lower Stress in Child's Life?

Practical Tool to Lower Stress- Joyful Together™

Joyful Together™:

- Research-based model to Build Childhood Resiliency and Lower Stress
- Reduces Toxic Stress by Enhancing Caregiver-Child Relationships with joyful play
- Rooted in Interpersonal Psychology & Neuroscience:
 - Focuses on how the Brain Develops in Context of Relationships
 - Implicit Associations
- Easy-to-do activities for to Coach Caregivers on infusing daily routines with joyful activity

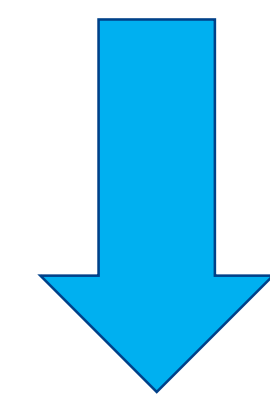


Using Everyday Moments to Build Resiliency

Research Questions

Would Families have: **Lower Stress?** **Improved Relationships?** **Salivary Cortisol Changes?**

Results: A Tale of Four Families



Lower Salivary Cortisol: 3 of 4 Parents

Lower Overall Total Stress: All Parents (Average of all Family's Children)

Family A



Family A: n=6 (1 Mom, 5 Children)

	Salivary Cortisol	Parent-Child Stress Level	Medical History	Overall Total Stress
Mom (38 years)	↓	-	Asthma, ADD, Sleep Apnea, Low VitD, Hypothyroidism	↓ In 40 th Percentile
Child A1 (5 years)	↓	INCREASED	None	
Child A2 (7 years)	↓	↓	Asthma	
Child A3 (8 years)	↓	↓	ADHD, Anxiety	
Child A4 (9 years)	↓	↓	None	
Child A5 (9.5 years)	INCREASED	↓	Anxiety	
Child A6 (5 years)	↓	↓	None	

Family B



Family B: n= 3 (1 Mom, 2 Children)

	Salivary Cortisol	Parent-Child Stress Level	Medical History	Overall Total Stress
Mom (37 years)	↓	↓	PTSD, Hypertension, Allergies	↓
Child B1 (11 years)	↓	INCREASED	None	
Child B2 (7 years)	↓	↓	Intellectual Delays	

Family C



Family C: n=4 (1 Mom, 3 Children)

	Salivary Cortisol	Parent-Child Stress Level	Medical History	Overall Total Stress
Mom (38 years)	INCREASED	-	Anxiety, Allergies, Mirena (progesterone)	↓ But still in 74 th Percentile
Child C1 (8 years)	INCREASED	INCREASED	ADHD, Allergies, Melatonin	
Child C2 (12 years)	↓	↓	Asthma, ADHD, Allergies	
Child C3 (5 years)	↓	INCREASED	Asthma, Autism, G-Tube, Eustachian Tubes	

Family D

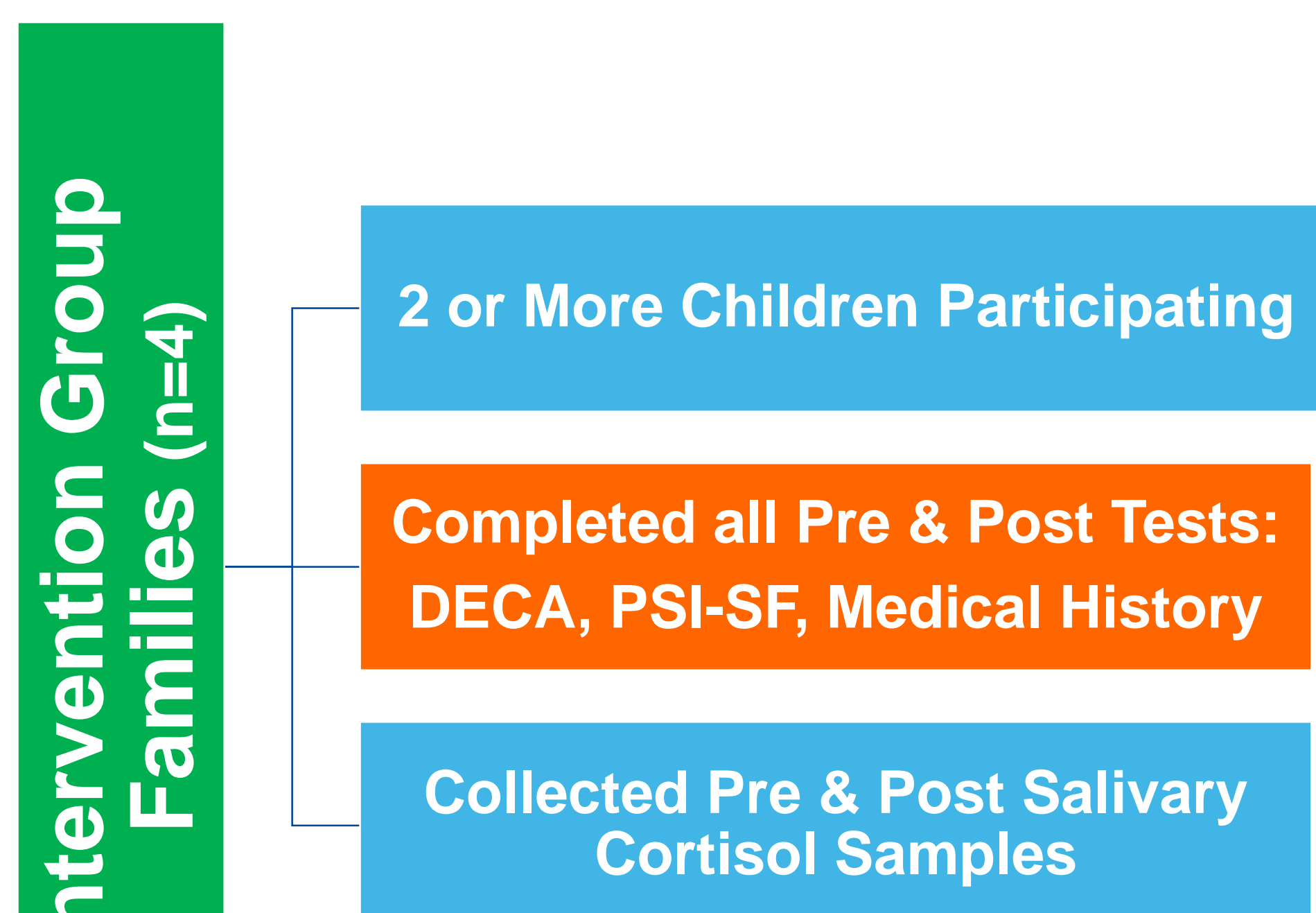


Family D: n=3 (1 Mom, 2 Children)

	Salivary Cortisol	Parent-Child Stress Level	Medical History	Overall Total Stress
Mom d (28 years)	↓	-	Anxiety, Depression, PTSD, Gestational Diabetes	↓ In ~40 th Percentile
Child D1 (3 years- twin)	INCREASED	INCREASED	Asthma	
Child D2 (3 years- twin)	↓	↓	None	

Methods

- Randomized Control Trial testing Joyful Together™ with Families receiving Home-Based Services
- Subsample of Families in Intervention Group of Randomized Control Trial run with Families Receiving Home-Based Services
(Help Me Grow, Early Childhood Mental Health, Psychotherapy)
- Measured Changes:
Salivary Cortisol, Stress and Protective Factors after 6 sessions of Joyful Together™



Subsample of Families Analyzed

Conclusions & Opportunities

Joyful Together™ (a parent-child play based model):

- ❖ **Lowers Parent Stress**
- ❖ **Impacts Salivary Cortisol** (representation of Stress Response System)
- ❖ **Impacts Parent Relationship with Siblings/Household Family, even if not receiving clinical services** (Overall Average Parent Stress Reduced)

Based on findings, thus far, can conclude that Joyful Together™ activities dampen effects of toxic stress by improving relationships and building resiliency.

A pilot study of the model showed positive results for parent-child pairs using the model. The model encourages parents to infuse play into as many every day moments as possible, so we took the model further to examine the effect of coaching parents to play with all of their children on stress and salivary cortisol (not only the child receiving home based services).

Further examination needed to elucidate connections between child and/or parent health histories and prescriptions with salivary cortisol, stress and protective factors

We observed decreases in parent stress and salivary cortisol (1 mother is an exception)- supporting our hopes that coaching parents to play with all of their children during home based services increases resiliency, and decreases parent stress by moderating the stress response system.

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