Velma McBride Murry, PhD
Lois Autrey Betts Chair, Education & Human Development
University Professor
Departments of Health Policy, Human and Organizational Development
PSMG: Systemic Racism and Prevention Science: Enhancing Social Justice to Achieve Health Equity
Disrupting Systemic Racism: Reimagining the Role of Prevention Science
This PSMG series is designed to:

1. prompt thoughtful, critical, action-oriented conversations
2. identify ways to re-tool, re-build, and re-envision the role of prevention science
3. elevating prevention science in efforts to address racism and discrimination, using social justice and health equity lenses
PSMG Series presenters were charged sharing with the group:

1) How leading theoretical **frameworks** might be updated to carry cultural resonance and historical context beyond what has been promoted by those who have historically been in power;

2) How **measurement strategies and tools** may be adapted or developed to accurately and holistically measure social, cultural, and structural mechanisms that impact health;

3) How **prevention interventions** might promote health and reduce toxic environments.
Translating Research into Protective Processes in African American Families: Buffering Effects of Race Related Experiences
FUNDING SUPPORT

Centers for Disease Control and Prevention
National Institute of Mental Health
National Institute on Alcohol Abuse and Alcoholism
National Institute of Child Health and Human Development
National Institute of Drug Abuse
Lois Autrey Betts Endowment
Figure 1. Integrative Model for the Study of Stress in Black American Families.

Historical Vestiges of Slavery and Jim Crow Laws (Path A)
- Race-related, economic, social, and political histories

Current Sociocultural Contextual Stressors (Path B)
- Racism
- Prejudice
- Discrimination
- Oppression
- Marginalization

Mundane, Extreme Environmental Stressors (Path D)
- Educational systems
- Employment opportunities
- Housing
- Neighborhood stressors
- Race-related daily hassles
- Family members' characteristics (age, temperament, biological factors)
- Insufficient health care services

Social Position (Path C)
- Race/ethnicity
- Social class
- Gender

Family Promotive and Inhibiting Vulnerabilities (Path E)
- Family relationships
- Partner support
- Each parent/caregiver's intrapersonal factors/processes
- Each child's intrapersonal factors/processes
- Biological responses to stress
- Psychological/emotional functioning

Cultural Strength-Based Coping Assets (Path F) (ORDINARY MAGIC)
- Cultural legacies
- Family values
- Family cohesion
- Beliefs & goals
- Racial socialization
- Racial identity
- Kinship support
- Religion/spirituality
- Collective socialization
- Optimism/positivity
- Future orientation

Positive Development, Adjustment, & Adaptation (Path G)
- Social competence
- Cognitive competence
- Emotional regulation
- Self-regulation
- Biopsychosocial resistance efficacy
- Successful life transitions
- Health outcomes

Excavating New Constructs for Family Stress Theories in the Context of Everyday Life Experiences of Black American Families
Data Source

Family and Community Health Study (FACHS)

- 897 African American families with a 10-11 year old children at time of recruitment
- 33% solo, 39% mother & partner; < 1% mother-grandmother
- Parents’ Mean Age: 35.3
- Education: 60.6% high school graduate
- Per capita income: $6597 (GA), $6403 (IA)
- Fulltime employment: 72% employed
Racial Discrimination as a Moderator of the Links Among Stress, Maternal Psychological Functioning, and Family Relationships

Table 2. Stacked Model Analyses Comparing Each Hypothesized Relationship of High and Low Perceived Discrimination Groups Against the Baseline Model

<table>
<thead>
<tr>
<th></th>
<th>( \chi^2 )</th>
<th>( df )</th>
<th>( \Delta \chi^2 )</th>
<th>( \Delta df )</th>
<th>GFI</th>
<th>CFI</th>
<th>RMR</th>
<th>CN</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Baseline model (paths constrained to be equal)</td>
<td>84.96</td>
<td>51</td>
<td>-</td>
<td>-</td>
<td>94</td>
<td>94</td>
<td>.06</td>
<td>313.46</td>
</tr>
<tr>
<td>2. Stressor pileup ( \rightarrow ) Psychological Distress</td>
<td>76.85</td>
<td>48</td>
<td>17.11**</td>
<td>3</td>
<td>95</td>
<td>97</td>
<td>.06</td>
<td>373.47</td>
</tr>
<tr>
<td>3. Psychological distress ( \rightarrow ) Relationship Quality</td>
<td>75.23</td>
<td>48</td>
<td>9.73**</td>
<td>3</td>
<td>95</td>
<td>96</td>
<td>.06</td>
<td>336.93</td>
</tr>
<tr>
<td>4. Psychological distress ( \rightarrow ) Relationship Quality</td>
<td>68.59</td>
<td>48</td>
<td>16.37**</td>
<td>3</td>
<td>95</td>
<td>97</td>
<td>.06</td>
<td>369.46</td>
</tr>
<tr>
<td>5. Relationship quality ( \rightarrow ) Caregivers-Target Relationship</td>
<td>77.82</td>
<td>48</td>
<td>7.14**</td>
<td>3</td>
<td>95</td>
<td>95</td>
<td>.06</td>
<td>325.78</td>
</tr>
</tbody>
</table>

**\( p < .01 \).
Adaptive Racial Socialization

Future Orientation

Self-Regulation

Social Norms about Risk Behavior

Affiliation with Prosocial Peers

Willingness

Prototypes

Number of partners

Substance Use

Teen Pregnancy

Sexual Behavior

Preparation for Discrimination

Cultural Education

Monitoring

Consistent Discipline

Inductive Reasoning

Involved, Vigilant Parenting

Consistent Discipline

Inductive Reasoning

Future Orientation

Self-Regulation

Social Norms about Risk Behavior

Affiliation with Prosocial Peers

Prototypes

Number of partners

Substance Use

Teen Pregnancy

Sexual Behavior

Note. Low risk males (N = 331); χ2(121) = 209.69, p < .000; comparative fit index (CFI) = .91; root mean square error of approximation (RMSEA) = .047 (.036, .058).†Measure in previous wave controlled. *p < .05; **p < .01; ***p < .001.
Note. Low risk participants (N = 765); χ²(113) = 328.99, p < .000; comparative fit index (CFI) = .92; root mean square error of approximation (RMSEA) = .050 (.044, .056). *Measure in previous wave controlled. *p < .05; **p < .01; ***p < .001.
## Profile Analyses for Trajectories of High and Low Risk African American Females and Males

<table>
<thead>
<tr>
<th></th>
<th>High Risk Female</th>
<th>Low Risk Female</th>
<th>High Risk Male</th>
<th>Low Risk Male</th>
<th>t/F (p)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>(N=37; 8.24%)</td>
<td>(N=412; 91.76%)</td>
<td>(N=25; 6.61%)</td>
<td>(N=353; 93.39%)</td>
<td></td>
</tr>
<tr>
<td><strong>Involved-vigilant parenting</strong></td>
<td>Mean</td>
<td>Std. Dev.</td>
<td>Mean</td>
<td>Std. Dev.</td>
<td>Mean</td>
</tr>
<tr>
<td>Monitoring</td>
<td>15.50</td>
<td>3.59</td>
<td>16.63</td>
<td>3.12</td>
<td>-2.01 (-0.02)</td>
</tr>
<tr>
<td>Consistent discipline</td>
<td>11.76</td>
<td>2.40</td>
<td>12.23</td>
<td>2.58</td>
<td>-1.01 (-0.15)</td>
</tr>
<tr>
<td>Inductive reasoning</td>
<td>11.74</td>
<td>4.32</td>
<td>13.23</td>
<td>4.03</td>
<td>-2.06 (-0.02)</td>
</tr>
<tr>
<td><strong>Youth intrapersonal factors</strong></td>
<td>Mean</td>
<td>Std. Dev.</td>
<td>Mean</td>
<td>Std. Dev.</td>
<td>Mean</td>
</tr>
<tr>
<td>Self-regulation</td>
<td>31.86</td>
<td>3.47</td>
<td>32.68</td>
<td>4.21</td>
<td>1.23 (-0.27)</td>
</tr>
<tr>
<td>Affiliation with prosocial peers</td>
<td>14.77</td>
<td>2.99</td>
<td>14.34</td>
<td>3.10</td>
<td>0.47 (-0.49)</td>
</tr>
<tr>
<td><strong>Social norms about risk behavior</strong></td>
<td>Mean</td>
<td>Std. Dev.</td>
<td>Mean</td>
<td>Std. Dev.</td>
<td>Mean</td>
</tr>
<tr>
<td>Intention</td>
<td>1.75</td>
<td>4.13</td>
<td>-0.06</td>
<td>4.10</td>
<td>2.50 (&lt;0.01)</td>
</tr>
<tr>
<td>Willingness</td>
<td>1.18</td>
<td>4.44</td>
<td>-0.33</td>
<td>3.54</td>
<td>2.36 (&lt;0.01)</td>
</tr>
<tr>
<td>Prototypes</td>
<td>1.04</td>
<td>9.87</td>
<td>0.15</td>
<td>11.04</td>
<td>0.46 (-0.68)</td>
</tr>
<tr>
<td><strong>Risky outcomes</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Substance use</td>
<td>4.68</td>
<td>3.84</td>
<td>3.10</td>
<td>3.67</td>
<td>2.39 (&lt;0.01)</td>
</tr>
<tr>
<td>Sexual behavior</td>
<td>4.62</td>
<td>1.58</td>
<td>4.20</td>
<td>1.82</td>
<td>1.31 (-0.90)</td>
</tr>
<tr>
<td>Teen pregnancy</td>
<td>1.45</td>
<td>0.77</td>
<td>0.61</td>
<td>0.77</td>
<td>5.79 (&lt;0.01)</td>
</tr>
<tr>
<td>Number of Sexual partners</td>
<td>0.21</td>
<td>0.64</td>
<td>0.20</td>
<td>0.56</td>
<td>0.04 (-0.52)</td>
</tr>
</tbody>
</table>
Reducing Disparities through Family-Centered Programs

• “Strong families can prevent adverse outcomes for youth and parents” (Berkel et al., 2011; Brody et al., 2010; Hops et al., 2001; Murry et al., 2012)
Family-Centered Delivery System for Prevention

• Families are considered the most fundamental, proximal social system for children’s development

• Thus, family-based programs can serve as a longitudinal & developmentally appropriate intervention for children

• Family-based programs that are culturally tailored may be an appropriate venue to address health disparities
Mechanisms of Change in Family-Centered Programs

- Enhance family processes and relationships that promote strength and resilience
- Evince positive changes in family functioning, that in turn, decrease manifestation of health problems among children and parents.
Translating Basic Research to Practice

Longitudinal, Developmental

• Contextual pathways to psychological adjustment among rural African American children and youth

Prevention/Intervention

• Strong African American Families Program (SAAF)
• Pathways for African Americans Success (PAAS)©
Conceptual Model for the Development and Implementation of Family-Centered Prevention Programs for African Americans

- Longitudinal, developmental research with rural African American families
- Partnerships with African American community members
  - Focus groups
  - Community liaisons
  - Community ambassadors
- Causative Theory
  - Model of distal and proximal processes and prevention targets
  - Mediators and moderators of prevention effects
- Preventive intervention efficacy - SAAF & PAAS
- Dissemination: Community-based effectiveness trials
- Prescriptive Theory
  - Implementation guidelines
  - Training and technical support
  - Utilization
  - Monitoring implementation quality
  - Requisite dosage levels
  - Fidelity
  - Moderators of implementation and utilization quality
Excavating New Constructs for Family Stress
Theories in the Context of Everyday Life
Experiences of Black American Families
SAAF/PAAS Causative Model

**Regulated-communicative Parenting**
- Involved-vigilant parenting
- Supportive, affectively positive relationships
- Communication about sex and substance use
- Adaptive racial socialization

**Youth Intrapersonal Protective Processes**
- Future orientation
- Self-regulation
- Emotional regulation
- Racial pride
- Resistance efficacy
- Negative prototypes of sexual initiators and substance users

**Vulnerability to HIV-related Risk Behavior**
- Early initiation of sexual intercourse
- Initiation of substance use
- Affiliation with risk-taking peers

**HIV-related Risk Behavior**
- unprotected sexual intercourse
- Multiple sexual partners
- Continuing substance use

**Distal Outcomes**
(High School, Young adulthood)

**Intervention-Targeted Outcomes**
(Middle School)

Preadolescent/Young adolescent
Intervention-targeted Mediators
Content of SAAF/PAAS

<table>
<thead>
<tr>
<th>Caregiver sessions (1hr)</th>
<th>Youth sessions (1hr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>- nurturance, monitoring, control,</td>
<td>- importance of having and</td>
</tr>
<tr>
<td>and consistent non-punitive discipline</td>
<td>abiding by household rules</td>
</tr>
<tr>
<td>- establishing clear expectations</td>
<td>- negative attitudes regarding the</td>
</tr>
<tr>
<td>regarding alcohol use</td>
<td>use of alcohol and other drugs</td>
</tr>
<tr>
<td>- strategies for communicating</td>
<td>- similarities and differences</td>
</tr>
<tr>
<td>about sex</td>
<td>between themselves and peers who use alcohol</td>
</tr>
<tr>
<td>- strategies for adaptive racial</td>
<td>- resistance efficacy</td>
</tr>
<tr>
<td>socialization</td>
<td>- adaptive behavioral strategies to</td>
</tr>
<tr>
<td></td>
<td>use when encountering racism</td>
</tr>
</tbody>
</table>

- Joint family sessions (1hr)
  - communication skills and activities aimed at increasing family cohesion and children’s positive involvement with their families
Prevention/Intervention Targets with Rural African American Populations

Strong African American Families and Pathways for African American Success Programs

Promotes
- Involved, vigilant parenting
- Family relationship quality
- Racial socialization
- Youth future orientation self-regulation, resistance efficacy, academic and social competence

Inhibits
- Conduct disorders and depressive symptoms
- Alcohol/other substance use
- Early-onset sexual activity and other sexual risk taking practices
Figure 2. New User Proportions for Alcohol Use at Posttest by Experimental Condition.

![Graph showing new user proportions for alcohol use at posttest by experimental condition.]

Z-score for testing proportions: 2.23 with $p < .05$. Relative reduction rate: 56.41%

Figure 3. New User Proportions for Alcohol Use at Long-term Follow-up by Experimental Condition.

![Graph showing new user proportions for alcohol use at long-term follow-up by experimental condition.]

Z-score for testing proportions: 2.16 with $p < .05$. Relative reduction rate: 36.93%
Overall Findings

• SAAF program targeted malleable, proximal parenting processes in the youths’ immediate family contexts that were hypothesized to facilitate increase youths willingness to avoid risky situation, even when there were risk opportunities available to them. Risk opportunity avoidance had immediate and long-term positive consequences for youth, preventing HIV related risk engaging behaviors.

• Evidence of program sustainability 6 years post-program exposure, few incidences of unprotected sex, more monogamous relationships, less evidence of substance and drug use compared to the control group.
Transporting SAAF in Technology Delivery Platform

PATHWAYS FOR AFRICAN AMERICAN SUCCESS (PAAS) PROGRAM
Figure 1. Consort flow diagram.
### Table 1
Overview of Session Content in the PAAS Program

<table>
<thead>
<tr>
<th>Session</th>
<th>Parent Program Component</th>
<th>Parent-Targeted Behaviors</th>
<th>Youth Program Component</th>
<th>Youth-Targeted Behavior</th>
<th>Family Program Component</th>
<th>Family-Targeted Behavior</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Supportive Parenting</td>
<td>Importance of supportive parenting for youth development</td>
<td>Future Orientation</td>
<td>Identify and visualize goals and dreams</td>
<td>Supporting our youth</td>
<td>Build nurturing, supportive relationships; Enhance emotional development</td>
</tr>
<tr>
<td>2</td>
<td>Establishing Family Roles and Routines Nurturing Involved Parenting</td>
<td>Understand the values of having specific house rules; appropriate and effective punishment for misbehavior</td>
<td>Self - discovery &amp; Autonomy</td>
<td>Identify positive self-qualifying and capacities; Clarifying values and social norms; Importance of youth family involvement; Association between being responsible and an anxiety or privilege-granting by parents</td>
<td>Family values</td>
<td>Share family roles and choices; Discuss family values; Create a family shield of values</td>
</tr>
<tr>
<td>3</td>
<td>Adaptive Racial Socialization and Encouraging Racial Pride</td>
<td>Identifying and managing racial discrimination</td>
<td>Dealing with unfair situations</td>
<td>Identify and clarifying reasons for differential treatment; Active coping strategies to manage unfair and difficult situations in various settings</td>
<td>Encouraging racial pride</td>
<td>Learn strategies for handling difficult situations; Identify special strengths of African American families</td>
</tr>
<tr>
<td>4</td>
<td>Linking school and academic performance to goals, dreams to youths' future orientation</td>
<td>Understand the importance of success in school; Learn ways to help youths succeed in school; Learn effective ways to be an advocate for your child in school settings</td>
<td>Being cool &amp; smart</td>
<td>Understanding the differences between passive, aggressive, and assertive behaviors; Adaptive responses, that are smart and cool</td>
<td>Positive, affectionate family relations</td>
<td>Identify each other's strengths; Reinforce ways to help each other to reach family goals and relieve stress</td>
</tr>
<tr>
<td>5</td>
<td>Protecting against dangerous behavior</td>
<td>Understand risk prevalence, overall, and for your community; Importance of being an &quot;Askable&quot; parent</td>
<td>Resisting peer pressure</td>
<td>Identify peer pressure; compare risk engagements from non-risk engaged</td>
<td>Caregivers and young people working together to protect youth from risk behaviors</td>
<td>Develop family plan for handling peer pressure and temptation; Share expectations and values about risk and friendship</td>
</tr>
<tr>
<td>6</td>
<td>Parental protections that reduce high-risk behaviors</td>
<td>Learn how to effectively monitor youths; Understand the prevalence of sexual activity among pre-teens; Establish expectations about sex</td>
<td>Dealing with sexual and substance and drug use temptations</td>
<td>Identify reasons your young people get involved in sex; identifying and avoiding dangerous situations; Coping with risk, temptations, and trauma; goals, school, and future career</td>
<td>Our family plan and pledge for positive youth development</td>
<td>Share expectations, dreams, and hopes; Discuss and identify family strengths; Establish a family vision that reflects strength, growth, and accomplishment</td>
</tr>
</tbody>
</table>
## PAAS Delivery Platforms

<table>
<thead>
<tr>
<th>Self-directed technology condition:</th>
<th>Facilitator-led small group condition:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technology Intervention Assistants set up laptops at designated community centers, such as churches, youth centers, and libraries. TIAs directed participants to an available laptop, provided any necessary technical assistance, and remained in viewing sight to oversee session completion.</td>
<td>Three African-American community members (e.g., one for parent sessions and two for youth sessions) implemented the manualized PAAS curriculum. Twelve groups of roughly 12 families per group met weekly, engaged in organized role-playing activities and guided discussions with time allotted to ask questions.</td>
</tr>
</tbody>
</table>

### Home mailed literature control condition:
Families received a weekly mailing of PAAS topical-related brochures and pamphlets, wherein the differences lie only in the delivery method.
The Pathways for African American Success: Does Delivery Platform Matter in the Prevention of HIV Risk Vulnerability Among Youth?

Velma McBride Murry, Ph.D. a,*, Heather Hensman Kettrey, Ph.D. b, Cady Berkel, Ph.D. c, and Misha N. Inniss-Thompson, M.S. a

a Department of Human and Organizational Development, Peabody College, Vanderbilt University, Nashville, Tennessee
b Department of Sociology, Anthropology & Criminal Justice, Clemson University, Clemson, South Carolina
c REACH Institute (formerly the Prevention Research Center), Arizona State University, Tempe, Arizona
<table>
<thead>
<tr>
<th></th>
<th>Technology versus control</th>
<th>Group versus control</th>
<th>Technology versus group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>d</strong></td>
<td><strong>95% CI</strong></td>
<td><strong>d</strong></td>
</tr>
<tr>
<td>Parent targeted outcomes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Articulated Norms/Expectations about Risk Engagement</td>
<td>.29*</td>
<td>.03, .55</td>
<td>.08</td>
</tr>
<tr>
<td>Open, Supportive, Family Communication</td>
<td>.20</td>
<td>-.08, .47</td>
<td>.31*</td>
</tr>
<tr>
<td>Frequency of conversation</td>
<td>.26*</td>
<td>.00, .52</td>
<td>.39*</td>
</tr>
<tr>
<td>Discussion quality</td>
<td>.05</td>
<td>-.23, .33</td>
<td>.30*</td>
</tr>
<tr>
<td>Conflicted ineffective communication</td>
<td>-.14</td>
<td>-.42, .13</td>
<td>.02</td>
</tr>
<tr>
<td>Youth targeted outcomes</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Articulated Norms/Expectations about Risk Engagement</td>
<td>.18</td>
<td>-.08, .44</td>
<td>.27*</td>
</tr>
<tr>
<td>Open, Supportive Family Communication</td>
<td>.28</td>
<td>-.04, .61</td>
<td>.01</td>
</tr>
<tr>
<td>Frequency of conversation</td>
<td>.21</td>
<td>-.05, .47</td>
<td>.18</td>
</tr>
<tr>
<td>Discussion quality</td>
<td>.28</td>
<td>-.05, .61</td>
<td>.07</td>
</tr>
<tr>
<td>Conflicted ineffective communication</td>
<td>-.01</td>
<td>-.33, .32</td>
<td>.18</td>
</tr>
<tr>
<td>Risk engagement intentions</td>
<td>-.36*</td>
<td>-.61, -.10</td>
<td>.03</td>
</tr>
</tbody>
</table>

CI = confidence interval.
* = p < .05
Figure 2. The influence of delivery format on Intent to Treat (ITT) improvements in parenting and youth risk factors.
The Pathways for African American Success Program: Mitigating the Negative Consequences of Discrimination
Figure 2. Linkages between Discrimination and Adolescent Depression at Pretest

Notes: $X^2(1) = 0.80; \ p = .37; \ ***p \leq .001; \ **p \leq .01; \ *p \leq .05$
Figure 1. Conceptual Model

- Adolescent Discrimination
- Parent Discrimination
- Parent Depression
- PAAS Program
- Intervention Targeted Parenting
- Adolescent Racial Pride
- Adolescent Depression

- Risk Processes
- Protective Processes
Figure 3. Examination of the Effects of the PAAS eHealth Program on Protective Processes for Adolescent Depression

Notes: $\chi^2(79) = 97.01, p = .08$; RMSEA = .04 (90% confidence interval, CI = .00, .06); CFI = .92; SRMR = .07

***p ≤ .001; ** p ≤ .01; *p ≤ .05; +p ≤ .10

The t-value is 2.01, p<.05.
Regulated, Communicative Parenting

Pretest

Depressive Symptoms

Regulated, Communicative Parenting

Posttest

.23*

Regulated, Communicative Parenting

.82*

.28*

SAAF/PAAA Intervention Group

Long-term Follow-up

.26*

Depressive Symptoms

-12

Reduces Mental Health Problems among Parents
Merging Neuro and Prevention Science

**Background:** Neuroimaging studies have implicated deficits in the fronto-striatal circuit in increased risk-taking behaviors. However, little is known about the role of functional coupling between the reward system (ventral striatum; VS) and regions responsible for emotional and cognitive control (prefrontal cortex; PFC) in relation to adolescent coping behaviors.

**Study Purpose:** To examine frontal-striatal changes during a reward-seeking task before and after exposure to PAAS.

**Research Design:** 47 African-Americans (AA) aged 11-14 years (66% males, M age = 12.5 ± 1.0). Participants randomized to intervention (n = 22) and waitlist (n = 25) completed functional magnetic resonance imaging (fMRI) scans at pre- and post-intervention and self-report measures of risk-taking and coping at pre-intervention and 3-month follow up.
Functional Connectivity During Reward-Seeking in Adolescents Enrolled in a Risk-Reduction Intervention

Marie L. Gillespie, PhD,1 Akul Sharma, MSc, Theo G.M. van Erp, PhD,1 Monique Ernst, PhD,2 Velma McBride Murry, PhD,1,3 & Uma Rao, MD,1,4
1University of California, Irvine, Department of Psychiatry & Human Behavior
2National Institute of Mental Health, Bethesda, MD, 3Vanderbilt University, Nashville, TN
4Children’s Hospital of Orange County, Orange, CA

PAAS participants \( t(21) = 2.88, \ p \leq .01 \), but not Waitlist youth \( t(24) = -0.69, \ NS \), exhibited significant increases in functional coupling between the VS and ventrolateral PFC (VLPFC) over time (Figures 2 and 3).

Increases in VS-VLPFC coupling for the full sample were associated with improved coping skills at follow-up \( B=2.20, \ SE=1.06, \ p \leq .05 \) (Figure 4).

These preliminary results suggest that PAAS, a family-based, culturally-salient, life-skills program, may influence stronger coupling between reward-seeking and inhibitory control systems.
SAAF and PAAS not only provided an opportunity to evaluate the program’s effectiveness in changing the targeted behaviors but also allowed us to address an issue that is seldom addressed in prevention research: testing the theory on which the prevention program is based (Cicchetti & Toth, 1992; Coie et al., 1993; Spoth, Kavanagh, & Dishion, 2002).

Testing of PAAS intervention on neural circuitry that governs adolescents decision making may hold promise for improving interventions targeting high risk behavior, linking biological mechanisms, psychological processes, and social-contextual factors to behavioral outcomes. All for full testing of a biopsychosocial contextual model in preventive interventions.
Thank you!!