Understanding Self-Regulation for Young Adults from an Applied Developmental Perspective

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Presented at Mathematica's Meeting on Using Adult Learning Principles to Improve Employment Outcomes for Low-Income Individuals and Families

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Duke | CENTER for CHILD and FAMILY POLICY

THE UNIVERSITY of NORTH CAROLINA at CHAPEL HILL

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- Christina Christopoulos

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ACF Family Room Blog:
How can understanding human development help improve program effectiveness? April 7, 2015

Early experiences influence life-long health and well-being. A growing cluster of research on early adversity, trauma, and toxic stress underscores the importance of both:

- reducing stressors on the children and families ACF serves, and
- helping them cope with these experiences.

Looking at this research through the lens of resilience, we can better understand why some individuals beat the odds, adapt, and thrive in the face of adversity. We can also start to identify promising strategies for promoting these protective factors.

http://www.acf.hhs.gov/blog/2015/04/how-can-understanding-human-development-help-improve-program-effectiveness

Extending the Focus on Self-Regulation beyond Early Childhood

- Suggestions from Frameworks to keep adolescence (and young adulthood) at the forefront

  - Use values at the top of communications
  - Explain why self-regulation is important and how it develops
  - Emphasize the role of environment and context
  - Provide causal explanations
  - Cast interventions and programs as narratives
  - Avoid reinforcing negative perceptions

https://www.acf.hhs.gov/opre/resource/communicating-scientific-findings-about-adolescence-and-self-regulation-challenges-and-opportunities

Overview

Overview of Self-Regulation Development

Self-Regulation in Young Adults

Implications for Employment Programs and Practices

Applied Definition of Self-Regulation

- The act of managing ***cognition*** and ***emotion*** to enable ***goal-directed actions*** such as :

  - **organizing behavior**

  - **controlling impulses**

 - **solving problems constructively**

Key Points about Self-Regulation
from an applied contextual model

- Serves as the foundation for health & wellbeing
  - Mental health, physical health, academic achievement, relationships, socio-economic success

- Is a developmental process
  - Develops over time, with sub-skills that build in complexity and sophistication

- Is influenced by multiple internal and external factors
  - Individual differences in biology and temperament
  - Develops in the context of relationships
  - Can be disrupted by stress and adversity, but buffered by caregiving and environmental support

Ecological-Biological-Developmental Model of Self-Regulation Development
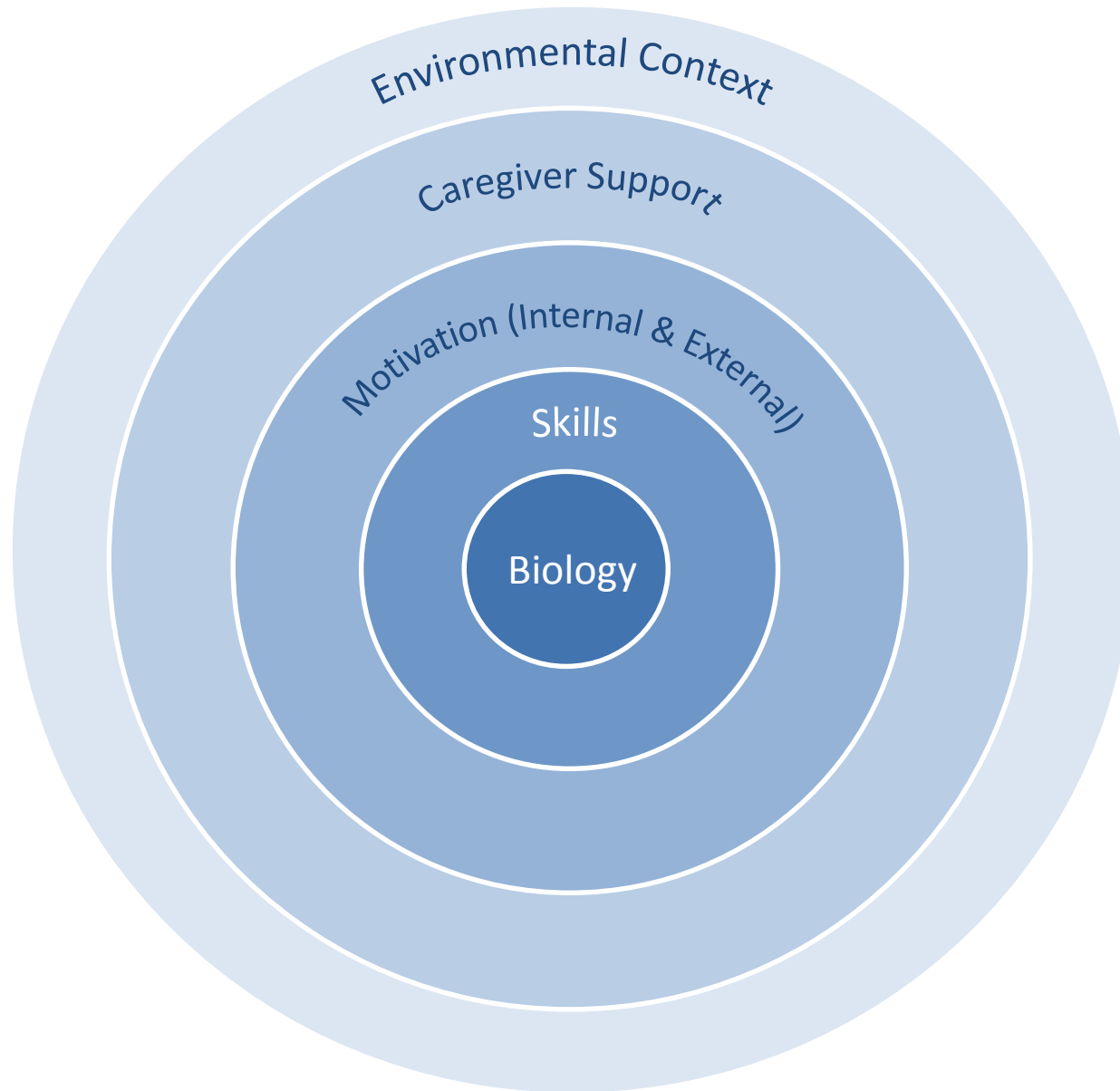
How do stress and poverty impact self-regulation?

- Makes it harder to regulate emotions
  - More reactive to "normal" stressors
  - Trouble controlling impulses and delaying gratification
- Disrupts executive functioning and cognitive energy available for things like:
  - Attention to work and parenting
  - Adherence to appointments and medications
  - Planning for the future, making decisions, and solving problems
  - Managing time and completing tasks

Self-Regulation Doesn't Just *Happen*

- Can be taught like literacy

- Depends on co-regulation from caregiver or mentor
  - Warm, responsive relationship
  - Instruction and "coaching" of specific, targeted skills
  - Environmental structure to support regulation, buffer stressors, and limit risks

- Adolescence and Young Adulthood are **not** too late, but we need to address self-regulation intentionally, systematically, and consistently

Benefits to Systematically Incorporating Self-Regulation into Existing Programs

- Based on current multi-disciplinary and translational science

- Provides a strong theoretical focus

- Literature supports long-term benefits

- Targets wellbeing broadly, addressing multiple outcome domains simultaneously

- Can be incorporated into existing programs

- If woven across programs, can provide a strong foundation to build resilience and success

Self-Regulation in Young Adulthood

Self-Regulation Skills Developing During Early Adulthood (18-25 years)

- Goal-Setting and Goal Achievement:
  - Maintain future orientation to guide day-to-day behavior
  - Self-monitor, self-reinforce, and solve problems to achieve goals
  - Delay gratification to achieve long-term goals
- Decision-Making:
  - Make decisions with broad perspective and compassion for self and others
  - Anticipate difficult decisions and plan ahead how to follow through
- Organizing time and complex behaviors and tasks (e.g., "getting" a job, juggling competing obligations)
- Managing emotions and stress
  - Manage frustration and distress effectively
  - Maintain emotional balance in response to normative stressors and seek help when stress in unmanageable or a situation is dangerous

Self-Regulation Challenges in Young Adulthood

- Demands for finding and maintaining a job, building a career, and becoming self-sufficient
- Work settings and intimate relationships are more socially complex than at younger ages
- Decreased environmental supports
  - Diminished presence of caregivers
  - Increased opportunity for risk activities
- Significant consequences for self-regulation failures
  - Job loss, criminal charges, unplanned pregnancies
- *Those who have experienced the most stress and adversity are the most vulnerable to self-regulation difficulties, which creates additional stress*

Co-Regulation Supports Needed for Young Adults

- Warm, responsive relationship with a caregiving/mentoring adult:
  - Calm, respectful support, positive beliefs, validation and acceptance
- Intentional modeling, monitoring, and "coaching" of specific skills:
  - Goal-setting /achievement and Problem-solving
  - Decision-making
  - Organizing time and behaviors
  - Managing emotions and stress
- Provide structure and support for self-regulation skills:
  - Make expectations concrete and relevant to the youth's long-term goals
  - Provide positive attention and rewards for small successes and efforts
  - Reduce emotional intensity in conflict situations; give time and space to calm down before problem-solving

Self-Regulation Intervention Research for Young Adults

- Only 23 studies identified in comprehensive review*
  - Majority with college students; only 17% at-risk and 1/3rd minorities
  - Half occurred in laboratory settings
  - Interventions often brief (< 5 sessions), 22% computer-administered, no caregivers involved
  - Relatively large number mind-body interventions; also stress-management, resilience, and life skills
- Outcomes
  - Medium to large effects seen on core self-regulation including emotion regulation, stress, and mindfulness
  - Small to medium effects on learning, delinquency, mental health

*Murray, Rosanbalm & Christopoulos (2016). OPRE Report #2015-97.
Office of Planning, Research and Evaluation. Administration for Children and Families

Limitations of Young Adult Self-Regulation Intervention Research

- Not representative of low-income young adults

- Interventions are often narrowly-defined, brief, and lack the co-regulation component

- Outcome measures are predominantly self-report

- Employment-related outcomes have not been assessed

Self-Regulation Skill-Building Approaches with Positive Effects

- Mindfulness interventions (9 studies):
  - Improves cognitive, emotional & behavior regulation, stress
  - Typically 8-week programs targeting body relaxation, breathing practice, mental imagery, and body/mind awareness
  - Strongest effects with trained mindfulness instructors
- Resiliency interventions (Burton et al., 2010; Steinhardt & Dolbier, 2008):
  - Improves cognitive, emotional & behavior regulation, stress
  - Psycho-educational and cognitive-behavioral strategies
  - Small pilot studies with college students and in workplace
- Computerized "reappraisal training" (Schartau et al., 2009; Woud et al., 2012):
  - Improves cognitive and emotion regulation and stress related to distressing or negative experiences
  - Brief interventions in laboratory with mixed age adults

Research Connecting Self-Regulation to Employment and Economic Success

- Several longitudinal studies show that self-control in childhood predicts:
  - Increased likelihood of saving money and homeownership
  - Higher income and SES (above and beyond family background and IQ)
  - Higher salary, job satisfaction, and occupational prestige (mediated by years of education)
  - Fewer credit problems
  - Fewer months unemployed through age 42

Converse et al., 2012, 2014; Daley et al., 2015; Moffitt et al., 2011

Implications for Young Adult Employment Programs and Practices

Self-Regulation Coaching Strategies for Employment Success and Self-Sufficiency

- Engage young adults in meaningful questions to clarify their employment goals and make these concrete for the "here and now"; encourage future perspective

- Help translate goals into step-by-step plans for seeking a job, and prompt use of planning skills

- Collaboratively anticipate and problem-solve barriers to obtaining a job and conflicts with supervisors or coworkers

- Rehearse strategies needed to support effective decision-making "in the moment"
  - Review how they used the strategies, encourage self-praise, revise goals, and problem-solve

Program Activities that May Support Self-Regulation Development

- Provide positive agency climate and predictable, warm, responsive interactions with staff
  - Foster relationships and connections with youth
  - Focus on teaching skills more than on self-regulation failures
- Streamline service access
  - E.g., reduce complexity of applying, make available to all unless opt-out
- Educate program staff about:
  - Self-regulation development
  - Impact of stress on self-regulation
  - How to provide coaching supports
- Provide self-regulation skill building for youth who need this
- Support staff's own self-regulation capacity

Implementation Considerations

- Need for implementation supports
    - Many promising programs include supports such as manuals or curricula, standardized training, and coaching or supervision
    - Consider implementation science best practices when using existing programs
- Staffing and Training Needs
    - Program staff need to understand self-regulation, how to teach it, how to coach it, and how to model it; may need supports themselves
- Adaptation issues
    - Majority of interventions were studied with college students and may need modification for low-income or at-risk youth and to address broader functional outcomes like employment

Next Steps

Resources

- Four Reports posted at acf.hhs.gov/programs/opre/resource/

  □ Foundations of Self-Regulation from an Applied Perspective

  □ Findings from Stress and Self-Regulation Literature Review

  □ Findings from Self-Regulation Intervention Review

  □ Application to Programs and Practice

- Appendix of the 299 Interventions Reviewed

Resources

- Inventory of Measures Studied in Intervention Research (in process)

- Completed or In Process* briefs:

  - *Seven Key Principles of Self-Regulation and Self-Regulation in Context*

  - *Promoting Self-Regulation in Adolescents and Young Adults: A Practice Brief*

  - *How Do Acute and Chronic Stress Impact the Development of Self-Regulation?**

  - *Promoting Self-Regulation in Early Childhood: A Practice Brief**

  - *Caregiver Co-Regulation Across Development: A Practice Brief**

  - *Future Directions for Self-Regulation Intervention Research**

  - *Reflections on the Relevance of "Self-Regulation" for Native Communities**

Contact information

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Methodology

Self-Regulation Intervention Review

To describe interventions being studied to improve self-regulation and evaluate their strength of evidence across development

Examined intervention studies for Birth through Young Adulthood that explicitly:

▫ Targeted self-regulation development

AND / OR

▫ Measured self-regulation outcomes in the cognitive or emotional domain

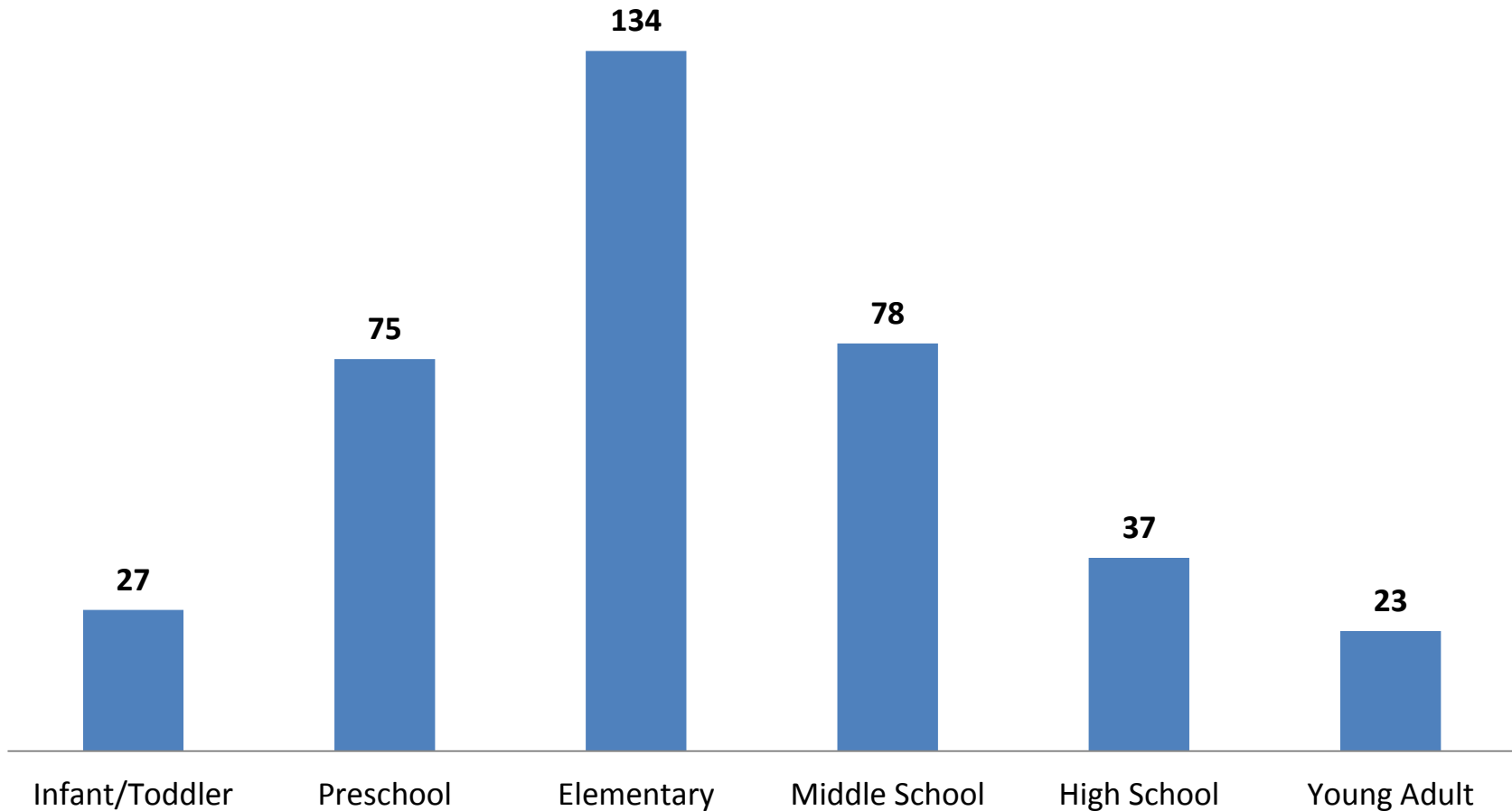# Self-Regulation Intervention Approaches

1. **Co-Regulation**

> **Warm, responsive caregiving and behavior coaching or scaffolding** (from a caregiver)

2. **Skills instruction**

> In **cognitive, emotional, or behavioral domains** of self-regulation – the building blocks for self-regulation development

Self-Regulation Intervention Studies by Developmental Period

27	75	134	78	37	23
Infant/Toddler	Preschool	Elementary	Middle School	High School	Young Adult

Intervention Approaches by Age
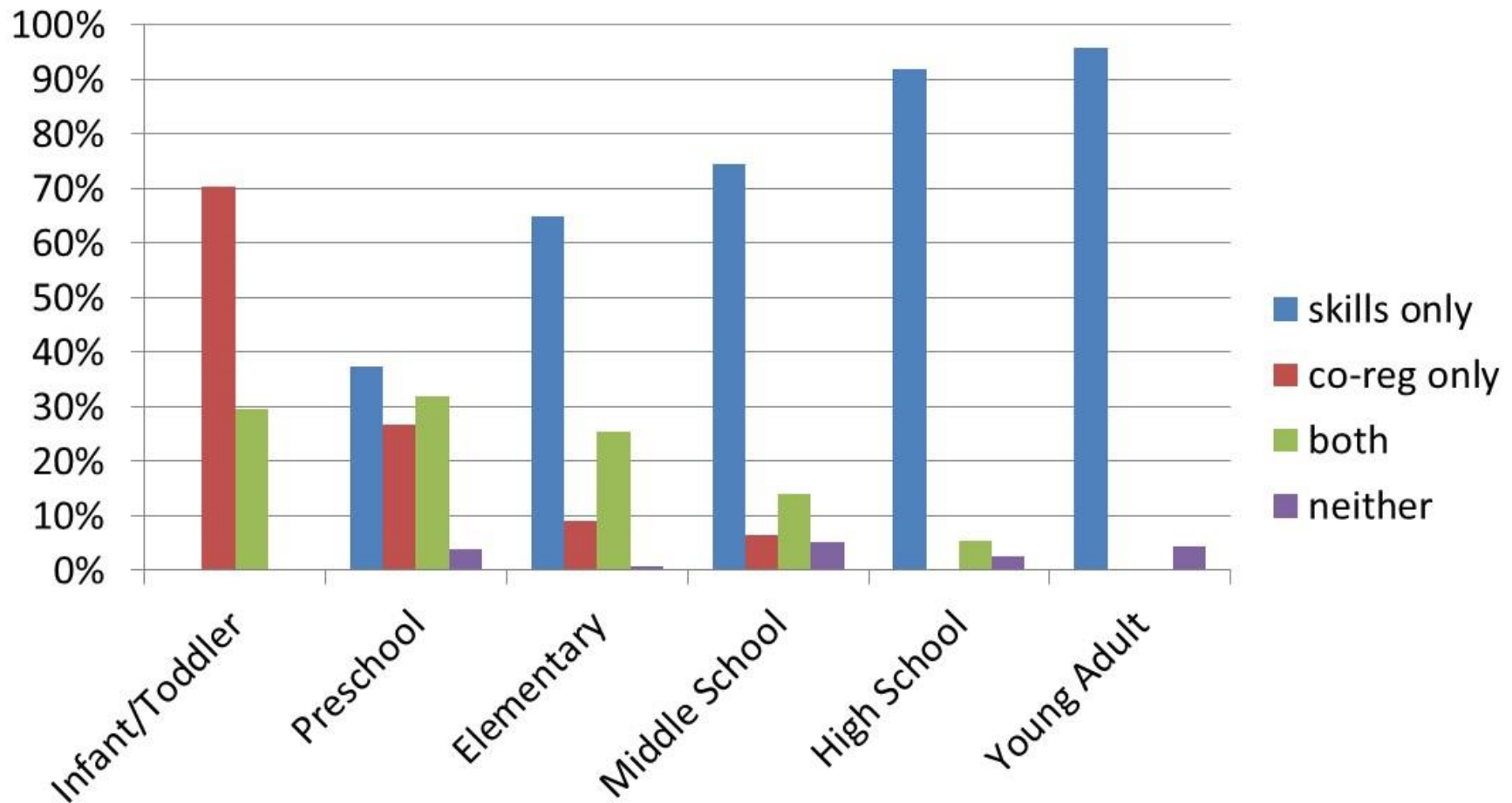
Methodology

- Categorized studies by
  - Age group of target children
  - Intervention target (child skills vs co-regulation)
  - Implementation characteristics (e.g., duration, location)
  - Child risk level (general pop vs in adversity or at-risk)
- Coded study quality (e.g., design, fidelity)
- Coded effect sizes for each outcome
  - -1 = Negative effect
  - 0 = Null effect
  - 1 = Small effect (Cohen's d = < .35)
  - 2 = Medium effect (Cohen's d = .36-.65)
  - 3 = Large effect (Cohen's d = >.65)

Outcome Categories

Child Core Self-Regulation Domains

- Cognitive
- Emotional
- Behavioral
- Stress
- Motivation
- Mindfulness

Child Functional Domains

- Learning/language
- Delinquent behavior
- Health/life skills
- Interpersonal
- Mental Health

Parent Outcomes

- Skills, attitudes, co-regulation, self-regulation, mental health, stress, support

Teacher Outcomes

- Skills/classroom climate, attitudes, co-regulation, self-regulation, quality of instruction

Description of Studies

- Study Design and Settings
  - 2/3rds RCTs
  - 2/3rds conducted in US

- Implementation
  - Majority have at least partial implementation support (except Young Adult studies)
  - Fidelity data reported in only 1/3 of the studies

- Measurement
  - Majority assess children/youth directly (or use self-report)
  - Many use parent/teacher report
  - Some include biological measures like cortisol levels

Pre-post 12%

Quasi-Exper 23%

RCT 65%
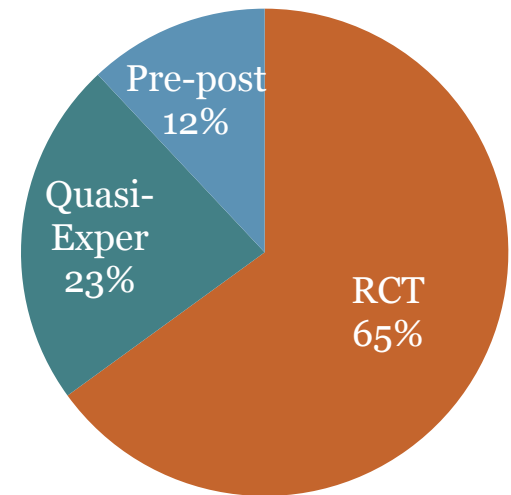
Sample and Setting Descriptions

- Generally representative of ACF populations,
  - Young Adult studies are the exception
- Across studies reporting race/ethnicity:
  - Slightly more than half of participants are African-American or Hispanic
  - BUT this varies across age group (33-61% minority)
- % living in adversity or at-risk declines with age (78% to 17%)
- Large majority of interventions implemented in daycare/school settings (except for oldest and youngest age groups)

Hispanic 19%

African American 33%

Caucasian 48%
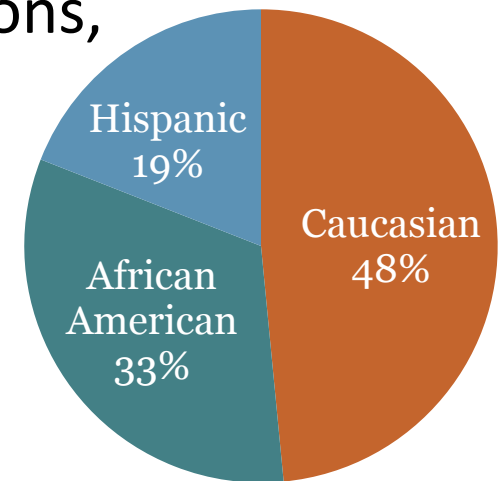
Overall Findings Across Developmental Groups

- Interventions result in positive and meaningful changes from several different approaches and across a wide range of measures

  - Both **cognitive and emotional regulation** are enhanced

  - Benefits for both **internalizing** (depression/anxiety) and **externalizing** (impulsivity, disruptive behaviors) symptoms

  - **Biological measures** such as salivary cortisol also improve

  - **Benefits extend to other domains** such as language, learning, delinquency, mental health, and interpersonal outcomes