The Importance of Self-Regulation for Children’s School Success

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What is Self-Regulation?

• Self-regulation includes the conscious control of thoughts, feelings, and behavior (attention, working memory, and inhibitory control).

• Recent research focuses on how these processes work together to help children regulate their emotion, cognition, and behavior (Blair & Diamond, 2008; Eisenberg et al., 2010).

• Our research has focused on the integration of these cognitive processes in overt behavior (McClelland et al., 2007; McClelland et al., 2010; Ponitz et al., 2009).
A Classic Test of Self-Regulation

The Importance of Self-Regulation for Healthy Development

Self-regulation has emerged as a key predictor of a variety of outcomes including:

- Social competence in children (McClelland et al., 2007a; Valiente et al., 2008).
- Obesity (Evans, Fuller-Rowell, & Doan, 2012)
- Short and long-term academic success (Blair & Razza, 2007; McClelland et al., 2007b; McClelland et al., 2006)
  - In a recent study, children with strong self-regulation at age 4 had nearly 50% greater odds of completing college by age 25 (McClelland, Acock, Piccinin, Rhea, & Stallings, in press).
- Long-term health and educational outcomes, wages, and employment (Heckman, Stixrud, & Urzua, 2006; Moffitt et al., 2011)
How Risk Can Impede the Development of Self-Regulation

- Children growing up in the context of risk are more likely to have poor self-regulation (Evans & Rosenbaum, 2008; Lengua, 2009; Sektnan et al., 2010)
- Risk factors such as poverty and ethnic minority status are related to lower self-regulation and achievement in young children (Evans & Rosenbaum, 2008; Lengua, 2009)
- Other research finds evidence for cumulative risk influencing children’s self-regulation (Wanless et al., 2011)

Cumulative Risk & Children’s Self-Regulation
(Wanless, McClelland, Acock, & Tominey, 2011)
Relations between Risk and Achievement
(Sektnan, McClelland, Acock, & Morrison, 2010)

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The Importance of Strong Self-Regulation for Children Experiencing Early Risk

• Accumulating research suggests that self-regulation is an important compensatory factor for children experiencing early risk
  (Obradovic, 2010; Sektnan, McClelland, Acock, & Morrison, 2010).
Patterns of Risk and Regulation in Achievement

• Even when children experienced risk, children with stronger self-regulation had stronger achievement than children with weaker self-regulation.

• For children with the same number of risk factors, those with stronger self-regulation did better academically than children with weaker self-regulation.

Strengthening Self-Regulation

Aspects of Parenting that Promote Child Self-Regulation:

• **Autonomy-support** (Bernier et al., 2010)
  - Encourage independence and problem-solving in children

• **Warmth and Sensitivity** (McClelland et al. 2003; Mistry et al., 2008; NICHD, 2003)
  - Warm and responsive parenting with appropriate limits

• **Family learning environment** (NICHD, 2003; Mistry et al., 2008; Razza et al., 2010)
  - Stimulating materials in the home
  - Read books to self and child
  - Limit TV and screen time
  - Engage in learning activities
Strengthening Self-Regulation

Self-Regulation Interventions:

- “Red Light, Purple Light”, “Freeze!” games
- Tools of the mind “Buddy Reading” and sociodramatic play.
- PATHS “Turtle Technique”

A number of interventions have been shown to help improve children’s self-regulation and academic success (Bierman et al., 2008; Diamond & Lee, 2011; Raver et al., 2011).

A recent study found that a preschool self-regulation intervention using classroom games predicted stronger self-regulation and gains in early achievement skills (Tominey & McClelland, 2011).
**Strengthening Self-Regulation**

- We are currently replicating this with 276 low-income children (3-5 years).

**Our initial results indicate that:**

- Children in the intervention experienced greater gains in self-regulation over the school year than children in the control group.
- Children in the intervention who were ELLs showed large gains in math skills over the school year.

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**Conclusions & Future Directions**

- Children's self-regulation is an important predictor of healthy development and school success.
- Children growing up in the context of risk have significantly weaker self-regulation.
- Self-regulation is also an important compensatory factor for children experiencing early risk.
- Strengthening self-regulation is likely an effective way to help at-risk children be successful early in life.
Interventions with children have shown strong results.
Integrating research from interventions into early education and related programs may be a next step.
Careful evaluation of these programs is also important.
Improving communication and links between families and key stakeholders is critical for promoting school readiness in young children.