# Supporting Executive Function and Self-Regulation Development

University of Minnesota

This tip sheet covers strategies that adults can use to help co-regulate children and build a foundation for a child's self-regulation skills.

#### **RECALL IT**

The *Introducing It* tip sheet presents these ideas:

- Executive function refers to a set of brainbased skills that allow people to control their own behavior and direct it toward long-term goals. Early childhood is a period of rapid growth in these capacities.
- Children develop regulation skills through their interactions with adults. Relationships with adults provide co-regulation, in which a child relies on support from a trusted relationship to calm their own nervous system.
- The ability to self-regulate develops gradually as children and youth grow, but co-regulation remains important across the lifespan.
- New research is placing more emphasis on the role of culture and context when considering regulatory behaviors. By definition, executive function is in the service of a goal, and the goals that are most relevant and adaptive for a child will depend on their expectations and experience of the world around them, and on beliefs, norms, and values.

# MEETING BASIC NEEDS IS FOUNDATIONAL FOR REGULATION

When considering how to support children's regulation capacities, basic needs are foundational. Children who don't have enough food or are not getting enough sleep live in a state of physiological dysregulation that prevents higher-order cognitive regulation.

A sense of safety is also crucial, as flight/fight/freeze responses that occur due to stress or trauma are highly dysregulating. Toxic stress and trauma (see CEED's tip sheets on trauma- https://z.umn.edu/effects-trauma) disrupt the development of regulation skills. Only when a child feels safe in their environment and their physiological needs are met can their prefrontal cortex take control and direct behavior toward longer-term goals. Children cannot learn new skills unless their brain feels safe and regulated (National Scientific Council on the Developing Child, 2010).

#### **EMOTIONAL SUPPORT**

A primary role of caregivers throughout early childhood is to help children deal with strong emotions. Research shows that warm, nurturing care from adults helps children develop emotion regulation skills. Children need adults who they trust as safe places to bring emotions to help them co-regulate. Caregivers who acknowledge and hold their children's emotions are more helpful in supporting the development of regulation skills than caregivers who dismiss or ignore emotions. Especially in early childhood, emotions are often displayed through behavior, including many behaviors that adults perceive to be challenging. Reframing these "difficult" behaviors as expressions of big emotions can help adults respond in a more constructive (rather than punitive) way. Emotion language is foundational for regulation. Giving children language around emotions helps them express what they are feeling. The act of simply naming an emotion can help regulate it (Siegel & Bryson, 2012).

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**TIP:** Build children's skills identifying and using emotion language through talking about these things with your child:

- the child's emotions
- your own emotions
- emotions of siblings, friends, pets
- emotions of people in books and on TV
- what causes different emotions
- strategies you use when you have strong emotions

#### **STRUCTURE AND LIMITS**

Providing structure and limits is also important for promoting self-regulation and executive functioning skills. When children have a predictable routine, they are more able to plan their behavior to align with that routine. For many children, transitions and unexpected demands are the hardest times to regulate, so when children know what the day will look like, this can provide structure for regulation. Consistent limits around what behavior is and isn't acceptable allow children to internalize these goals and values. When limits are unclear or inconsistently reinforced, this makes it harder for children to learn what goals they are working toward. We have to remember that children are constantly growing and learning when we provide structure and assistance to them! Adults need to continually respond to where a child is at developmentally and gradually let the child take more and more control. This scaffolding, or gradually removing support as a child becomes more competent, helps promote the higher-level thinking skills a child needs for more complex tasks such as planning and problem solving (Center on the Developing Child at Harvard, 2011).

#### **TRY IT OUT!**

Here are some key ways to support children's developing ability to self-regulate at different ages.

#### With INFANTS, caregivers can:

- Predictably and consistently meet needs around hunger and sleep, including setting up routines (e.g., daily schedule, bedtime routines)
- Provide warmth and nurturing in everyday interactions, show delight in play
- Touch and hold infants, which helps them regulate physiological states (temperature, heart rate) as well as emotion

#### With TODDLERS, caregivers can:

- Help toddlers name their emotions and describe what they are feeling
- Find consistent strategies for helping the child calm down – sing songs, rocking, reading books
- Provide both predictable routines and also room for choices (e.g., "It's time for breakfast. Would you like cereal or toast?")
- Help navigate tantrums provide calm and consistent support, which may include giving the child time and space to be very upset and then co-regulate when they are ready

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#### With PRESCHOOLERS, caregivers can:

- Engage in conversations about feelings and strategies for managing different feelings
- Help children find strategies that work for them to calm down – a specific place they can go, breathing techniques, phrases to say to themselves
- Encourage children to problem solve and identify their own mistakes, refrain from doing things for the child that they can do themselves

#### **DIVING INTO IT**

#### For additional information on this topic,

Visit the Harvard Center on the Developing Child- Executive Function & Self Regulation: https://developingchild.harvard.edu/science/key-concepts/executive-function/

Please visit CEED's website: http://cehd.umn.edu/ceed

#### **DEFINING IT**

#### **Executive Function**

A set of brain-based skills that allow people to control their own behavior and direct it towards longer-term goals rather than what is automatic or easiest to do

## **Co-Regulation**

The process of using a trusted relationship to "borrow" calm from someone else's nervous system to assist in calming oneself

## **Self-Regulation**

The ability to regulate emotion and arousal (e.g., frustration, excitement) in order to complete a task or goal

## **Scaffolding**

Providing children with the minimum amount of support they need to complete a task, and gradually reducing adult support as a child learns a skill

### **REFERENCES**

Center on the Developing Child at Harvard University (2011). Building the Brain's "Air Traffic Control" System: How Early Experiences Shape the Development of Executive Function: Working Paper No. 11. http://www.developing.child.harvard.edu

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