



Adolescent Self-Regulation

September 2018

Have you seen the YouTube video of the Marshmallow Test (https://www.youtube.com/watch?v=QX_oy9614HQ)? In this video, children are put alone in a room with one delicious marshmallow. They are told that they can eat the marshmallow right away, or they can wait just a few minutes for an adult to return to the room to give them a second marshmallow. What follows is an adorable compilation of children exercising every strategy they can to refrain from eating that tantalizing marshmallow. It turns out that children who show the ability to delay gratification, like resisting the temptation to eat the single marshmallow right away, are more likely to have successful outcomes as young adults, including more years of schooling, better coping skills to manage stress, and higher self-esteem.¹



Figure 1: The Marshmallow Test measures whether children can delay gratification.

WHAT IS SELF-REGULATION?

Self-regulation is defined as “the act of managing thoughts and feelings to enable goal-directed actions such as organizing behavior, controlling impulses, and solving problems constructively.”² Self-regulation can be broken down into the following three overlapping domains:

- **Cognitive self-regulation** includes focused attention, executive functioning, goal setting, self-monitoring, problem-solving, perspective-taking, and decision-making.
- **Emotional self-regulation** involves actively managing strong feelings and emotionally arousing situations as well as expressing emotions effectively in a calm and non-disruptive way.
- **Behavioral self-regulation** includes following rules, delaying gratification (like the Marshmallow Test), persistence, impulse control, conflict resolution, active coping strategies, and goal-oriented behaviors.

Self-regulation develops over time, starting in infancy and continuing through adulthood. Self-regulation is foundational for mental health and emotional well-being, academic achievement, physical health, and socio-economic success. It is also something that can be learned, making it a powerful focus for intervention.³

WHAT FACTORS INFLUENCE THE DEVELOPMENT OF SELF-REGULATION?

The development of self-regulation is influenced by a combination of factors. These include *individual factors*, such as a person's biology (e.g., genetics and temperament), individual skills, and intrinsic motivation to self-regulate to achieve their goals and live their values. Self-regulation is also influenced by *external factors*. Prolonged exposure to toxic stress and adversity can negatively impact regions of the developing brain that are essential for developing self-regulation. Caregivers and other trusted adults play a critical role in strengthening youth's self-regulatory skills and buffering them from the harmful effects of stress and adversity.⁴

IS SELF-REGULATION RELATED TO SEXUAL HEALTH?

Only a few studies have examined the specific relationship between self-regulation and adolescent sexual behavior. Two studies have shown that self-regulation in adolescence is negatively associated with a composite score of sexual risk taking (i.e., better self-regulators take fewer sexual risks).^{5,6} One of these studies examined the association of self-regulation with specific sexual behaviors. This study showed that self-regulation was not associated with ever having sex or initiating sex before age 15. Another study found that teaching emotional regulation strategies delayed sexual initiation among adolescence with mental health symptoms.⁷ Although there are few studies linking self-regulation specifically to sexual behavior, research suggests self-regulation is necessary for goal setting and goal pursuit, which may foster positive outcomes across a variety of contexts.⁸

HOW ARE ADOLESCENT PREGNANCY PREVENTION PROGRAMS CURRENTLY ADDRESSING SELF-REGULATION?

Most adolescent pregnancy prevention programs focus on the development of *cognitive self-regulation skills*, such as how to do the following:

- **Set goals for the future** and consider how sex, pregnancy, and sexually transmitted infections can influence those goals.
- **Develop problem-solving skills** to understand how to act when faced with obstacles or important decisions about relationships or sex.
- **Make decisions** about one's health, one's relationships, delaying sex, or using contraceptives.

Some adolescent pregnancy prevention programs teach youth how to develop *emotional regulation skills*, including how to do the following:

- **Identify emotions and share feelings with another person** (e.g., using "I feel" statements).
- **Recognize situations or triggers that elevate one's emotional state**, like being with friends, or experiencing a trauma trigger or reminder.
- **Recognize how strong emotions influence thoughts and behaviors**, including sexual behaviors.
- **Manage strong emotions** through techniques such as self-talk, breathing, mindfulness, movement, and muscle relaxation.

Some adolescent pregnancy prevention programs teach some aspects of *behavioral self-regulation*, including how to do the following:

- **Identify strategies for delaying gratification** of an immediate reward, such as practicing refusal skills for delaying sex.

- **Identify strategies for controlling impulses**, such as choosing to avoid people and places that encourage sexual risk taking or modifying situations to avoid risk (e.g., going to the restroom or calling a friend to step away from an unwanted situation, avoiding drugs and alcohol).
- **Identify strategies for focusing on more goal-oriented behaviors**, such as spending time with peers who have similar values and focusing on academics or extracurricular activities.

HOW CAN YOU SUPPORT THE DEVELOPMENT OF SELF-REGULATION?

You can help support the development of self-regulation in youth by teaching self-regulation skills through your adolescent pregnancy prevention curriculum, sexual risk avoidance interventions, or adulthood preparation subject activities. The Resources section on this tip sheet includes several noteworthy resources that provide interventions, lessons, and tips for teaching these skills.

However, teaching young people to develop self-regulation depends not only on *what* is taught, but also *how* something is taught. Adult caregivers, including parents, educators, coaches, and other mentors, play a critical role in shaping self-regulation through an interactive process called “co-regulation.”⁹

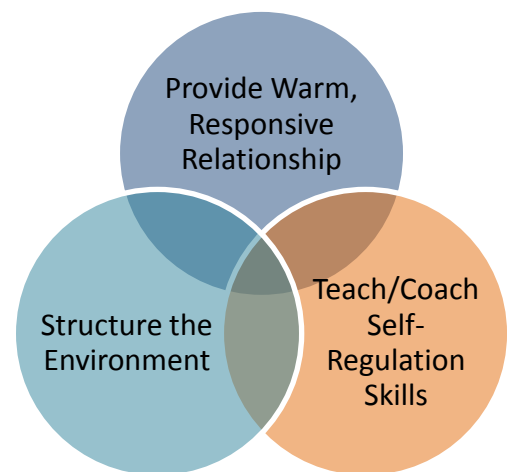
First, adult caregivers must focus on their *own* self-regulation. To co-regulate successfully, adult caregivers must do the following:

- Pay attention to their own feelings and reactions during times of stress or during stressful interactions with youth.
- Pay attention to their own thoughts and beliefs about the behaviors of others, particularly youth.
- Use strategies to manage emotions and respond effectively and compassionately in stressful situations.

With their own self-regulation in place, adult caregivers can then co-regulate with youth through three broad categories of support:

- **Provide a warm, responsive relationship** where youth feel genuinely cared for (i.e., unconditional positive regard). Build strong relationships with youth by communicating, through words and actions, interest in their world. Stay attuned to the needs of youth: recognize and respond to subtle cues and signals that they provide in times of distress (e.g., shaking their leg, staring out the window, lowering their head).
- **Structure the environment** to make self-regulation manageable, providing a buffer against environmental stressors. This involves creating an environment that is physically, socially, and emotionally safe for youth to learn and explore without risk to their well-being. Provide consistent, predictable routines and expectations, including behavioral expectations and consequences.
- **Teach self-regulation skills** through modeling, providing opportunities to practice skills, and reinforcing positive use of self-regulation skills.¹⁰

How to Co-Regulate



RESOURCES

- [Office of Planning, Research and Evaluation \(OPRE\) Toxic Stress and Evaluation Reports](#): This webpage provides a series of interrelated reports titled *Self-Regulation and Toxic Stress* from a team at the Center for Child and Social Policy at Duke University.
- [Self-Regulation and Toxic Stress Report 3: A Comprehensive Review of Self-Regulation Interventions from Birth Through Young Adulthood](#): This report provides the results of a comprehensive review of self-regulation interventions for children and adolescents from birth to young adulthood, as well as a range of outcomes.
- [The 2015 CASEL Guide: Effective Social and Emotional Learning Programs](#): The Collaborative for Academic, Social, and Emotional Learning Guide gives a systematic framework for evaluating the quality of social and emotional programs and applies this framework to identify and rate well-designed, evidence-based social and emotional learning programs that have the potential for broad dissemination to schools across the United States.
- [Treating Traumatic Stress in Children and Adolescents: How to Foster Resilience through Attachment, Self-Regulation, and Competency](#): This book by Margaret Blaustein and Kristine Kinniburgh is a comprehensive guide for working with children and adolescents impacted by toxic stress and trauma. They have dedicated an entire section to developing self-regulation, including practical tips, strategies, and handouts for working with youth.
- [Dynamic Mindfulness: Calm Focused Engagement in your Life and Classroom](#): The Dynamic Mindfulness, or DMind, curriculum provides students and teachers with tools for stress management, self-awareness, and self-regulation. The DMind website includes online training and downloadable lessons.

REFERENCES

- ¹ Mischel, W., et al. (2011). "Willpower" over the lifespan: Decomposing self-regulation. *Social Cognitive and Affective Neuroscience*, 6(2), 252–256.
- ² Murray, D. W., Rosanbalm, K., Christopoulos, C., & Hamoudi, A. (2015). *Self-regulation and toxic stress: Foundations for understanding self-regulation from an applied developmental perspective*. OPRE Report #2015-21, Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.
- ³ Ibid.
- ⁴ Ibid.
- ⁵ Crocket, L. J., Raffaelli, M., & Shen, Y.-L. (2006). Linking self-regulation and risk proneness to risky sexual behavior: Pathways through peer pressure and early substance use. *Journal of Research on Adolescence*, 16(4), 503–525.
- ⁶ Raffaelli, M., & Crocket, L. J. (2003). Sexual risk-taking in adolescence: The role of self-regulation and attraction to risk. *Developmental Psychology*, 39(6), 1036–1046.
- ⁷ Houck, Christopher D., Barker, David H., Hadley, Wendy, et. al. (2016). The 1-Year Impact of an Emotion Regulation Intervention on Early Adolescent Health Risk Behaviors. *Health Psychology*, 35(9): 1036-1045.

⁸ Deci, E., & R. Ryan. (2000). The “what” and “why” of goal pursuits: Human Needs and the self- determination of behavior. *Psychological Inquiry*, 11(4), 227–268.

⁹ Rosanbalm, K. D., & Murray, D. W. (2017). *Caregiver co-regulation across development: A practice brief*. OPRE Brief #2017-80. Washington, DC: Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.

¹⁰ Ibid.

This tip sheet was developed by ETR Associates, a subcontractor to RTI International under contract #HHSP233201500391 Task 4 with the U.S. Department of Health and Human Services, Administration on Children, Youth and Families, Family and Youth Services Bureau.

Suggested Citation: Guinosso, S. (2018). *Adolescent self-regulation*. Washington, DC: Administration on Children, Youth and Families, Family and Youth Services Bureau.



ADMINISTRATION FOR
CHILDREN & FAMILIES