



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

This brief reviews the importance of self-regulation for adolescents and young adults and provides guidelines for supporting self-regulation development for 14 to 25-year-olds. It is written by Desiree W. Murray and Katie Rosanbalm based on work conducted by a team at the Duke Center for Child and Family Policy for the Administration for Children and Families (ACF), and specifically addresses prevention programs and targeted interventions which could be implemented within ACF programs.

• Self-Regulation: What is it and why is it important?

Self-regulation has become recognized for its foundational role in promoting wellbeing across the lifespan, including physical, emotional, social and economic health and educational achievement. Self-regulation can be defined as **the act of managing thoughts and feelings to enable goal-directed actions**, including a variety of actions necessary for success in school, relationships, and the workplace. Supporting self-regulation development in youth is an investment in society, as stronger self-regulation predicts higher income, better financial planning, fewer risk behaviors like substance use and violence, and decreased health costs. Although many programs for older adolescents and young adults target skills *related* to self-regulation including “soft skills”, life skills, and resilience-building, utilizing a specific self-regulation framework may have benefits for 14 to 25-year-olds. Although evidence for specific self-regulation interventions for this age group are merely emerging, programs can support self-regulation with the promising practices and theoretical guidelines provided in this brief.

• Why focus on self-regulation in older adolescents and young adults?

Some people believe that self-regulation has to be taught in childhood, but actually it is not too late to make a difference in the adolescent and young adult years. Research has now shown that there are major changes in brain architecture that occur during adolescence, making interventions at this age important and timely. In particular during early and mid- adolescence (i.e., 11-15 years), brain systems that seek rewards and process emotions are more developed than cognitive control systems responsible for good decision-making and future planning. This means

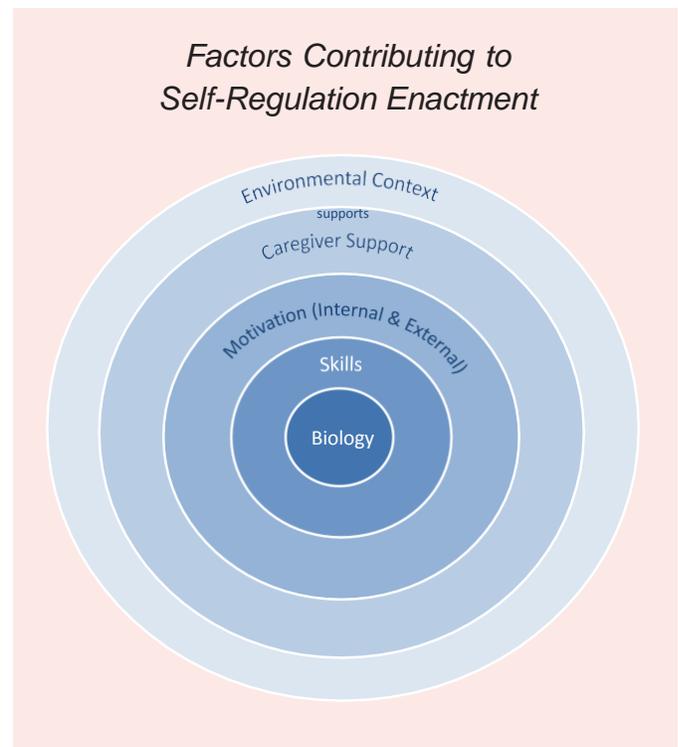
Self-Regulation Skills Developing During Adolescence

- Persisting on complex, long-term projects (e.g., applying to college)
- Problem-solving to achieve goals (e.g., managing work and staying in school)
- Delaying gratification to achieve goals (e.g., saving money to buy a car)
- Self-monitoring and self-rewarding progress on goals
- Guiding behavior based on future goals and concern for others
- Making decisions with broad perspective and compassion for self and others
- Managing frustration and distress effectively
- Seeking help when stress is unmanageable or the situation is dangerous

that self-regulation is developmentally “out of balance” at this age. It also means that tremendous growth in self-regulation skills continues throughout young adulthood, which can be strengthened with instruction and support. Given that poor decisions during adolescence can have long-term negative consequences, self-regulation supports during this developmental period are critical. This is especially important for youth with a history of adverse childhood experiences; for this group, interventions during adolescence and young adulthood may reduce their risk and facilitate resilience.

- **How does self-regulation develop?**

Self-regulation develops and is learned through interaction with caregivers and the broader environment over an extended period from birth through young adulthood (and beyond). Cognitive, emotional, and behavioral self-regulation skills can be taught much like literacy, with structure, support, and coaching over time. Even for youth with self-regulation challenges or delays, effective interventions can strengthen and improve skills; there are ongoing opportunities for intervention across development. However, there are a number of other factors (shown in the box titled “Factors Contributing to Self-Regulation Enactment”) that influence whether a youth will self-regulate in any given situation. Importantly, *although self-regulation is an internal capacity, its development and use depend on predictable, responsive and supportive environments and relationships.* For more information on self-regulation development, visit: <http://www.acf.hhs.gov/programs/opre/resource/self-regulation-and-toxic-stress-foundations-for-understanding-self-regulation-from-an-applied-developmental-perspective>.



- **Do older adolescents and young adults really need caregivers to help them develop self-regulation?**

Contrary to many media messages that suggest teenagers are already independent and don't need adults, caregivers are critical to healthy development throughout adolescence and into young adulthood. Caregivers and mentors are particularly important in the development of self-regulation. As noted in the box on p. 1 titled “Self-Regulation Skills Developing During Adolescence”, there are many critical self-regulation skills under development during this period that involve increased complexity in thinking, managing frustration and stress, and integrating thoughts and emotions in a way that supports goal achievement as well as compassion towards self and others. To help youth gain the full range of skills needed for adulthood, caregivers (including parents and teachers) as well as mentors can:

- **Teach self-regulation skills** through modeling, providing opportunities to practice skills, monitoring and reinforcing adolescents' progress on skill development and goals, and coaching them on how, why, and when to use their skills in increasingly complex situations (e.g., conflicts between work and school demands, living independently).
- **Provide a warm, responsive relationship** where youth feel safe to learn and make mistakes as they increasingly navigate bigger decisions and more challenging situations on their own (e.g., making decisions regarding risk behaviors in the context of peer pressure, raising a child with or without a partner). Caregiving relationships and mentoring can also serve to motivate youth to learn, practice, and implement self-regulation skills.
- **Structure the environment** to make self-regulation manageable, providing a buffer against environmental stressors. This involves limiting opportunities for risk-taking behaviors, providing positive discipline and natural consequences for poor decisions, and reducing the emotional intensity of conflict situations (e.g., giving time and space to calm down as needed).

The three points above describe the supportive process between adults and youth that we call “co-regulation”. Co-regulation provides assistance and support for optimal self-regulation through warm and responsive interactions. Support, coaching, and modeling are provided to facilitate a youth's ability to understand, express, and modulate their thoughts, feelings, and behavior.

- **Why do some youth need more support with self-regulation than others?**

Greater levels of support are needed for youth who have self-regulation difficulties due to individual characteristics or adverse childhood experiences. Individual differences may be due to temperament or genetic factors that influence how youth respond and react to stress. Adverse experiences may include physical or emotional abuse, caregiver substance abuse or mental illness, exposure to violence, and the accumulated burdens of poverty. In addition, youth living in chronic adversity are less likely to have caregivers who themselves have the resources for their own self-regulation and for co-regulation. Such youth are also likely to lack resources and positive climates in their schools, neighborhoods, and communities to support self-regulation development.

Youth with individual or environmental risk factors may have delays in self-regulation development that cause difficulties maintaining positive relationships with others and contribute to disruptive and risky behaviors. They may over-react in stressful situations and have trouble using effective coping strategies. Moreover, their expectations for the future may be limited, which may reduce their motivation and long-term goal-setting. Thus, youth who experience adversity are vulnerable to a range of negative, lifelong health and mental health difficulties without intervention. Fortunately, evidence suggests that *interventions focused on skill instruction, caregiver support, and environmental context can reverse these effects and improve long-term outcomes.*

- **What's the big deal about stress? Isn't it good for us?**

Stress is one of the biggest challenges that youth face in peer relationships, at school, home, and work. Although manageable stress may build coping skills, ongoing high intensity stress that overwhelms existing skills and support can create toxic effects that negatively impact development and produce long-term changes in brain architecture. In fact, *the development of self-regulation can be disrupted by prolonged or pronounced stress and adversity including poverty and trauma experiences*. Ongoing, overwhelming experiences of stress can physically change the wiring of the brain to rely more heavily on emotional reactions than on reflection, reasoning, and decision-making. These changes make youth more sensitive and reactive to later experiences of stress, which may be adaptive in some situations but is generally associated with negative outcomes. For more information on the relationship between stress and self-regulation, visit: <http://www.acf.hhs.gov/programs/opre/resource/self-regulation-and-toxic-stress-a-review-of-ecological-biological-and-developmental-studies-of-self-regulation-and-stress>.

- **What is the impact of self-regulation interventions during adolescence?**

The small but growing body of research on preventive self-regulation interventions for older adolescents and young adults is described in an OPRE report titled “A Comprehensive Review of Self-Regulation Interventions from Birth through Young Adulthood”. Findings reviewing 299 interventions across ages show that **positive and meaningful changes can result from several different intervention approaches** including conflict resolution, anger coping, stress management, resiliency training, and a variety of mind-body and mindfulness interventions. More specifically, results from 60 studies of intervention with high schoolers and young adults show:

- Strong and consistent improvement in cognitive regulation
- Small but significant improvements in health, mental health, and delinquency
- Substantial benefits from mindfulness programs in particular, across both cognitive and emotional regulation, as well as for stress and mental health

Self-regulation skills may be included in “soft skills” or life skills training as part of mentoring, youth employment or leadership programs, but these tend to be very broad in focus, without the intentional and targeted skill-building recommended.

However, existing programs lack the comprehensive approach recommended in this brief. Perhaps because of this, outcome effects vary greatly across the different interventions reviewed, with many finding no clear benefits. Existing interventions would be strengthened by the following:

- *A more intentional and targeted focus on self-regulation*, where cognitive and emotional regulation skills and their integration are systematically taught with ongoing coaching, reinforcement, and support. Many current programs are very broad and diffuse, which may weaken the impact on specific self-regulation skills.
- *A greater focus on emotional regulation (i.e., managing distress and strong, negative emotions and fostering empathy and compassion for self and others)*. This is particularly important given the nature of development and social relationships in adolescence.

- *Inclusion of parents, teachers, or mentors who can serve as self-regulation coaches.* Self-regulation coaching for adolescents will likely require training, as this goes beyond simply serving as a role model.

Although not the focus of the current work, it should be noted that there is also considerable evidence of the benefit of clinical interventions focused on self-regulation for youth who may require a higher level of intervention.

For more information on the effects of preventive self-regulation interventions that have been studied for high schoolers and young adults (as well as other ages), visit:

<https://www.acf.hhs.gov/opre/resource/self-regulation-and-toxic-stress-report-3>

• How can programs support self-regulation development in older adolescents and young adults?

As described above, types of interventions that appear promising for self-regulation development in 14 to 25-year-olds who may not yet warrant mental health treatment include: conflict resolution, anger coping, stress management, resiliency training, and a variety of mind-body and mindfulness programs. Note that not all programs have proven effective and not all have been used with at-risk youth or youth living in adversity. Given these limitations, specific interventions should be selected carefully. Skills curricula for existing programs can be reviewed to determine if they address the specific self-regulation skills described above (e.g., persisting, problem-solving, delaying gratification, goal setting and monitoring, decision-making, managing negative emotions and stress, and help-seeking). In addition, co-regulation supports from caregivers are a critical supplement to skills training.

Mind-body interventions referenced here include yoga, meditation, and martial arts. Mindfulness is an increasingly mainstream technique of intentionally focusing attention on one's emotions and thoughts in the present moment, and accepting these thoughts and feelings without judgment.

General guidelines for implementing preventive self-regulation programs based on the review of theoretical and empirical literature described above are as follows:

1. Provide interventions at varying levels and intensity depending on the youth's context and needs.
 - a. Use universal approaches for building the self-regulation of all youth and to promote a positive climate in schools and other settings. In schools, skills curricula may be provided as part of health education classes and can be supported by positive behavior systems and counseling programs.
 - b. When possible, decrease environmental stressors for youth living in adverse environments, as they are vulnerable to self-regulation challenges. Caregivers are an important buffer for youth against the negative impact of stress.
 - c. At-risk youth would benefit from more intensive skills support that could be provided through mentoring, leadership, or youth employment programs as part of "soft skill" or non-core job skills training.

- d. Provide co-regulation supports from a trained self-regulation “coach” for youth showing self-regulation difficulties. Coaching would involve clear self-regulation goals and intentional instruction and skill support. This could be a mentor or job coach from any number of community agencies.
2. Given the gap between adolescents’ emotional and cognitive control systems in the brain for middle and high school age youth, it is important to target emotion regulation skills. Teaching emotion regulation skills such as accepting or managing negative feelings can help adolescents better balance their emotions. When thoughts and emotions work together, it supports youth in making more effective decisions, solving problems, and achieving goals.
3. Include parents, teachers, or mentors in any self-regulation intervention. Provide these caregivers and other supportive adults with assistance in building their own self-regulation skills in addition to coaching them on strategies to strengthen relationships and provide co-regulation for the youth.

For more information on how self-regulation interventions could be applied in programs supported by ACF, visit: <https://www.acf.hhs.gov/opre/resource/self-regulation-and-toxic-stress-implications-for-programs-and-practice>

• What’s the bottom line about older adolescents, young adults, and self-regulation?

Adolescence and young adulthood are times of both risk and opportunity with regard to self-regulation. Changes in the brain prime youth for substantial gains in self-regulation skills and capacity, while societal expectations of responsibility and consequences increase. Self-regulation interventions can help to prepare youth for employment and self-sufficiency, paving a path towards successful adulthood. Current research suggests that such outcomes can be supported with intentional focus on teaching and supporting specific cognitive, emotional, and behavioral self-regulation skills in combination with caregiver or mentor support and structure in the context of a warm relationship. Successful investments in youth benefit society as a whole by strengthening the workforce, increasing economic stability, and reducing costs for social services and the justice system.



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