Calm, Alert and Happy

Written by Dr. Stuart Shanker

York University

What Is Self-Regulation?

Just about everywhere you turn these days you come across someone talking about the importance of enhancing children's ability to self-regulate. This is because of a growing number of studies showing that self-regulation lays a foundation for a child's long-term physical, psychological, behavioral, and educational well-being (Shanker, 2012). What isn't quite so clear, however, is what exactly *self-regulation* is, and what sorts of things parents, caregivers and early childhood educators can do to enhance a child's ability to self-regulate.

There is a tendency to think that "self-regulation" is just another way of talking about self-control. We have long seen self-control as a sort of muscle: as having the internal strength to resist an impulse. Self-control is clearly important for children's ability to deal with the tasks and the temptations that they are confronted with every day (Moffitt et al., 2011; Duckworth & Seligman, 2005). But *self-regulation* represents a very different way of understanding why a child might be having problems with self-control, and more important, what can be done to help that child.

One of the most common mistakes is to confuse *self-regulation* with *compliance*. A child might behave the way we want because he is afraid of being punished, or solely in order to obtain some coveted award; but this is not at all the same thing as the child who actually *wants* to behave this way, where the consequences of such an attitude for healthy development are profound. Self-regulation has nothing to do with being strong or weak, and to punish a child for a 'lack of self-discipline' when his problem has to do with an over-stretched nervous system risks exacerbating the self-regulatory problems that the child is dealing with.

For a long time the prevailing idea was that you can get a child to do what you want by using punishments and rewards; but the more these behaviour management techniques have been studied the more we've come to recognize that not only is this very draining on the adults who have to play the role of disciplinarian, but, as far as the child is concerned, they often don't work very well and in too many cases they can actually make things worse (Pink, 2011). Self-regulation, on the other hand, represents an attempt to understand the causes of a problematic behavior and then mitigate those causes, rather than simply trying to extinguish the behavior.

In simplest terms, self-regulation refers to how efficiently and effectively a child deals with a stressor and then recovers (Porges, 2011; Lillas & Turnbull, 2009; McEwen, 2002). To deal with a stressor, the brain triggers a sort of gas pedal, the sympathetic nervous system, to produce the energy needed; and then applies a sort of brake, the parasympathetic nervous system, in order to recover. In this way the brain regulates the amount of energy that the child expends on stress so that resources are freed up for other bodily functions, like digestion, cellular repair, maintaining a stable body temperature, or paying attention and learning.

The Development of Self-Regulation

A baby is born with only between 20-25% of her adult brain. At the moment of birth her brain starts to grow at a phenomenal rate, producing approximately 700 new synapses every single second.

In addition to forming connections between all the different sensory and motor systems, the part of the baby's brain that is growing the most is the prefrontal cortex, where the systems that support self-regulation are housed.

Over the past decade, developmental neuroscientists have learned that *it is by being regulated that these robustly growing systems are wired to support self-regulation*. The experiences that promote this process begin immediately. The tactile stimulation that the baby receives when you hold or stroke her release neurohormones that are highly calming; through your voice, your shining eyes, your smiling face, or gently rocking or bouncing your baby when she is fussy, you are laying the foundation for good self-regulation.

The next critical stage in the development of self-regulation is called 'Social Engagement'. This begins long before your baby begins to speak. The more calmly and warmly the caregiver responds to her baby's crying, and the better she reads the cues as to what her baby is feeling or wants, the better she can 'up-regulate' or 'down-regulate' her.

This is a fundamental principle of self-regulation: it is as much about 'arousing' a baby – e.g., energizing her when she is drowsy and it is time to eat or perhaps just play – as it is about calming a baby down when she is agitated or it's time to sleep.

The development of language marks a critical advance in this 'social engagement system'. Now the toddler can tell you what he wants or needs, and it is imperative that we respond

to these communicative overtures – even if only to tell the child that we will come in a moment – in order to help him develop the functional language skills that enhance self-regulation.

When they are young teens, children start to go through a fundamental transition in their self-regulation, needing their parents much less and their peers much more. But not all teens go through this development at the same age or the same rate and, indeed, some may still not have fully mastered this transition until they are young adults. Furthermore, children suffer all sorts of setbacks and regressions in their ability to self-regulate, and in times of acute stress it is not at all unusual to see a child or even a teen revert to the infant stage of needing a parental hug in order to get calm.

The Arousal Continuum

The ability to self-regulate refers to how smoothly a child is able to move up and down through different *arousal states*, which are critical for expending and restoring energy:

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Inhibition

1. Asleep
2. Drowsy
3. Hypoalert
4. Calmly focused and Alert
5. Hyperalert
6. Flooded

Activation

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When children are calmly focused and alert, they are best able to modulate their emotions; pay attention; ignore distractions; inhibit their impulses; assess the consequences of an action; understand what others are thinking and feeling, and the effects of their own behaviours; or feel empathy for others.

Children's Stress

Over the past two decades, scientists have made a number of important discoveries in regards to children's stress:

1. While some stress is highly motivating, too much stress can have a long-term negative effect.
2. Too many children are dealing with too many stressors in their lives today.
3. We need to develop a much better understanding of the nature of these stressors and how to reduce them.
4. Children need to learn how to identify for themselves when they are becoming agitated and what they can do to return to being calm and focused.

So what exactly are these stressors? We all know that children are under a lot of pressure today and there is a lot of uncertainty in their lives. But scientists have been developing a much broader understanding of *stress*: of the sorts of things that activate the sympathetic nervous system, and just as important, the sorts of things that help a child's recovery.

The five primary sources of stress in children's lives today are:

1. Biological
2. Emotional
3. Cognitive
4. Social
5. Prosocial

Each of these levels influences and is influenced by all the others. So when working on a child's self-regulation we always have to be mindful that we are looking at all five levels, and not simply one or two. For a lot of children, too much noise or visual stimulation or strong smells can be a stressor. For some children, too much junk food or sugar can be a stressor. For far too many children today, not enough sleep or exercise or just playing with other children is a huge stressor. Many children struggle with strong negative emotions, like fear, anger, shame, or sadness. Some children find certain kinds of cognitive challenge very draining. A great many children find group activities stressful. And finally, children can find it very challenging to have to deal with other children's feelings or needs.

The Signs of an Excessive Stress-Load

When we study the above list it starts to become clear that many of the things that might be stressing a child aren't things that we necessarily think of as a stressor. So how can we tell if a child is over-stressed?

For parents, caregivers, and educators, there are a number of signs of when a child is being overloaded by stress. Some of the key ones are when a child:

- has a lot of trouble paying attention, or even responding to his name
- has a lot of trouble doing the simplest things
- is very crabby when he wakes up in the morning, or never seems to be happy during the day

- argues a lot, or seems to want to oppose our wishes, however reasonable these might be
- gets angry a lot, or too angry, or resorts to hurtful words or even violence
- is highly impulsive and easily distracted
- has a great deal of trouble tolerating frustration
- it is difficult for the child to:
  - » sit still
  - » go to bed
  - » think through even the simplest of problems
  - » get along with other children
  - » have any positive interests
  - » turn off the TV or stop playing the video game.

The Three Key Steps to Self-Regulation

1. The first step is to reduce the child's overall stress-level. This can be as simple as making sure the child is well-slept, getting nutritious foods, and lots of exercise; turning off the radio or the TV in the background if we suspect that our child is sensitive to noise; or limiting the amount of time spent on computer or video games if these seem to leave the child agitated. Just going to school can be stressful for a lot of children, and even very simple aids like a disc for their chair at school or a weighted bag for their lap or some playdough to squeeze while doing lessons can be calming.
2. The second step is to become aware of what it feels like to be calmly focused and alert, and what it feels like to be hypo- or hyper-aroused. A large number of Canadian children lack this basic aspect of self-awareness.
3. The third step is to teach children what sorts of things they need to do in order to return to being calmly focused and alert and what sorts of experiences they may need to manage or even avoid.

The world our children are growing up in today is one where self-regulation is becoming ever more critical. But research is now showing that sports, playing a musical instrument, being involved in the arts, yoga, and martial arts like Tae Kwan Do, all provide enormous benefits for self-regulation (Diamond, 2011). Self-regulation is every bit as much about doing all those things that increase a child's energy levels as learning how to deal with situations or stimuli that the child finds very draining.

Questions for Reflection

- What can I do to support children in learning how to self-regulate?
- What can I change in my environment to reduce children's stress levels?
- How can I support children in recognizing when they are under- and over-stimulated?
- How can I help children recognize what sorts of activities help them to become calmly focused and alert and what activities they need to limit?

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The Canadian Self-Regulation Initiative (CSRI) was launched in the fall of 2012. The goal of this initiative is to embed practices designed to enhance self-regulation in the classroom. A number of schools in British Columbia, Ontario and Yukon are involved in the First Wave of the CSRI. For more information about this initiative, as well as useful tips and practices for parents and educators, go to www.self-regulation.ca.