

The New Rites of Passage: Regulation and Relationships

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Abstract

Teenagers face many factors that impact their brains. Factors ranging from technology to trauma physiologically alter the teenage brain. For educators to support their students, they require a foundational understanding of how technology and trauma impact the teen brain. Teenage students report record high levels of stress in their young lives. Students report stress levels equal to those of their parents and other adults. Teachers are trying to work with classes in which a majority of students report they have had to deal with trauma and other kinds of stress in school and online. To mitigate these issues, teachers must assist students by fostering self-regulation skills. Further, teachers must help students by buffering the effects of trauma and stress by nurturing strong and caring relationships with students. When teachers understand the interrelationship between regulation and strong relationships, they will be able to provide students with vital skills needed for their success. As foundational skills, regulation and relationships are the new rites of passage for today's teenagers. This paper examines current research literature associated with the brain, self-regulation, and relationships.

Keywords: brain development, relationships, self-regulation, teen brains, trauma, allostasis

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In the 20th century, the teenage years were marked with familiar rites of passage: attending a first school dance, starting high school, getting a driver's license, and applying to college, military, or a first job. In addition to the typical rites of passage, 21st century teens face tremendous stressors—academic, social, and emotional—both inside and outside the classroom (Rideout & Robb, 2018). The author espouses, in agreement with other educators, that to be successful, teens require a substantive school support system that engages all adults—teachers, paraprofessionals, tutors, social workers, school counselors, psychologists, cafeteria staff, and administrators (Holmes et al., 2015; Lane, 2006; Souers & Hall, 2016; Sousa, 2017). Teens in the 21st century require new rites of passage to effectively navigate adolescence; I believe students need regulation skills and strong relationships with school staff (Souers & Hall, 2019). These elements can ultimately foster teens' development into thriving young adults. To help their teenaged students, educators require a foundational and comprehensive understanding of how trauma and stress affect the teenage brain (Schwartz-Henderson, 2016; Zacarian et. al., 2017).

The Current Teenage Brain

Rewired

Currently, teens are extensively exposed to various technologies, with far-reaching impacts (Sousa, 2016). Teens access technology with ease; however, they risk overexposure and overuse (Rideout and Robb, 2018). Rideout and Robb's survey results revealed 89% of teens, ages 13–17, have a smartphone, an increase from 41% in 2012. Seventy percent of teens reported using social media daily, reflecting a 36% increase from 2012; teens identified texting as their preferred communication method. Adults working with teenaged students must examine technology's impact on teen brains, given technology's pervasive daily influence (Rideout and Robb, 2018; Sousa, 2016).

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As a direct result of technology overexposure at young ages, teenagers' brains experience "rewiring" (Sousa, 2016, p. 23). Research has indicated the brain can reshape its circuits based on environmental input; this concept of neuroplasticity allows people to continue to learn throughout their lives (Sousa, 2016). Teenagers' continual exposure to technology divides their attention (Sousa, 2017) and negatively impacts their social interaction skills (Sousa, 2016). As highlighted by Sousa (2016, 2017) technology's drawbacks have begun to overwhelm and negatively affect teens, both physiologically and socially. Additionally, many teens' brains are further affected by trauma's pervasive impact (Burke Harris, 2018; Sittler, 2009).

Trauma-Affected

Throughout research literature, childhood trauma is pervasive (Burke Harris, 2018; Crosby, 2015; Jennings, 2019; Tough, 2016). Trauma among school-aged children is considered "a public health epidemic" (Craig, 2016, p. 28). In fact, more than 25% of children experience physical, sexual, or emotional trauma (Crosby, 2015). Overall, in their research, McInerney and McKlindon (2014) found one half to two thirds of children have experienced trauma. In North Carolina, 68% of 16-year-old students had experienced trauma, with 37% experiencing two or more incidents (McInerney & McKlindon, 2014). The National Survey of Children's Health in 2011–2012 indicated nearly 35 million U.S. children experienced at least one type of childhood trauma (Souers & Hall, 2016). According to Nealy-Oparah and Scruggs-Hussein (2018), 60% of students have experienced 3–4 adverse childhood experiences. Based on my reading of the research and my experiences as a teacher, I believe it is important for school personnel to respond to trauma's prevalence so students feel supported.

Childhood trauma, which negatively impacts brains, has been explored by researchers (Felitti et al., 1998; Jennings, 2019; Souers and Hall, 2016). Felitti et al. (1998) and Burke Harris (2018) categorized trauma as abuse, neglect, and household dysfunction, connecting childhood trauma exposure with significant negative health outcomes, including heart disease, obesity,

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ADHD, asthma, and diabetes, and early death. Their research has depicted trauma's prevalence in young people, and there is growing evidence that the effects of childhood adversity continue far beyond childhood to have negative psychological, social, and medical effects on people throughout their lives (Burke Harris, 2018; Souers & Hall, 2016).

Given the prevalence of adverse childhood experiences, understanding how trauma alters teen brains is important (van der Kolk, 2014; Sousa, 2016, 2017). Trauma physiologically changes a teen's brain; first, trauma exposure affects the prefrontal cortex's ability to filter out unrelated information. Information enters the thalamus and moves to the amygdala and the frontal lobes. When reaching the amygdala, the received information is assessed to determine its level of threat to survival. If information is (mis)perceived as a threat, the brain emits cortisol and adrenaline, causing a whole-body response to follow—before teens can consciously evaluate the threat's validity (van der Kolk, 2014). Reactions to classroom environmental factors within trauma-affected teens often result in a fight, flight, and/or freeze response (Souers & Hall, 2016). Given the overwhelming influence over the brain and body reactions, a teen's "emotional brain" (van der Kolk, 2014, p. 57) often trumps their focus on academics.

Exposure to stress can result in physiological brain reactions, particularly with the prefrontal cortex and the amygdala (Sousa, 2017; van der Kolk, 2014). A process of maintaining balance in the human brain is called allostasis. According to McEwen and Wingfield (2007), "Allostasis is the active process that leads to adaptation to a stressor, and mediators of allostasis include stress hormones as well as the autonomic nervous systems and pro-inflammatory cytokines and metabolic hormones" (Abstract). Under constant or severe traumatic pressure, the allostatic process becomes overloaded. Consequences of allostatic overload include many of the common diseases of modern life (e.g., obesity, cancer, heart disease, ADHD, asthma, diabetes) (Burke Harris, 2018; McEwen & Wingfield, 2007).

Although adverse childhood experiences and trauma increase difficulties for children to respond to changes in life in a regulated manner, allostasis provides the brain stability to adjust

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responses (Karatoreos & McEwen, 2013). Teachers can help students by using the natural systems of the brain (Caine, 2018). Understanding how the brain works when under stress can help teachers create experiences that foster the allostasis process through helping students become effective and efficient in using their self-regulation skills (Caine, 2018, Jennings, 2019)). Thus, I contend, and Sousa (2016) agrees, that adults working with teens need to understand how teen brains react to technology and trauma so teens can be supported.

The Brain, Self-Regulation, and Relationships

Schools can play an important role providing safety and stability to trauma-affected students (Jennings, 2019; McInerney & McKlindon, 2014). Often, trauma “masks itself in classroom behaviors that can easily be interpreted erroneously” (Sitler, 2009, p. 120). Research has revealed childhood trauma affects students’ stress regulation and results in students’ attention focusing on survival, as opposed to content instruction (Craig, 2016). Stress causes the body to generate cortisol, produces an adrenaline rush, and increases the heart rate (Schwartz-Henderson, 2016). Supportive adult responses can buffer such physiological responses (Burke Harris, 2018; Schwartz-Henderson, 2016). I believe that school-based adult supports can create adult buffers for students who have experienced trauma.

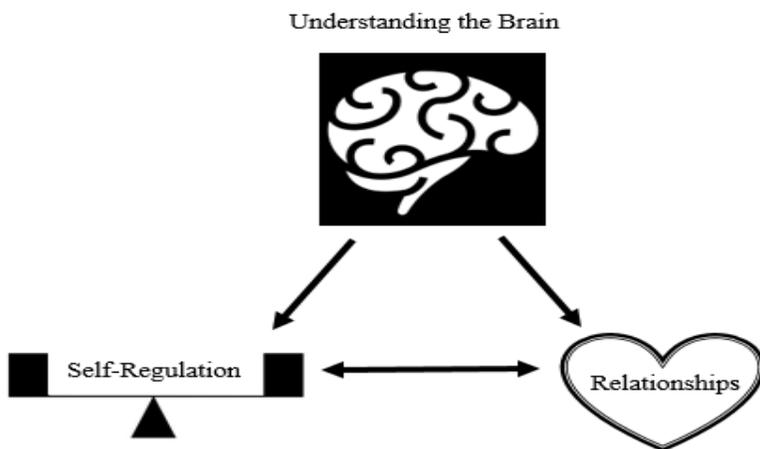
Tough (2016) outlined research demonstrating biological changes in children’s growing brains; these changes “impair the development of an important set of mental capacities that help children regulate their thoughts and feelings” (p. 4). As teachers move from acknowledging to comprehending root causes of students’ behaviors (i.e., they are biological responses and not active choices), they may fundamentally understand many students’ “misbehaviors” are physiological stress responses (Schwartz-Henderson, 2016). These responses often present as fight, flight, or freeze (Souers & Hall, 2016). I agree with people like Burke Harris (2018) and Jennings (2019), that instead of facing disciplinary actions, students need understanding and assistance from the school. Educators can positively impact students affected by trauma.

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To support teens, educators must recognize that understanding the brain, fostering self-regulation, and nurturing strong teacher-student relationships interrelate, as demonstrated by my visual depicted in Figure 1.

Figure 1

Brain, Self-Regulation, and Relationships Interrelate as Visualized by Dr. Kimberly Hellerich



As visualized by Figure 1, educators' understanding of how a teen's brain reacts (the top visual) associates with an awareness of self-regulation strategies (lower left hand visual). Relatedly, I espouse that educators have or gain the abilities to instruct and implement self-regulation strategies, which is represented by the balance in Figure 1. If teachers help students develop self-regulation skills, stronger student-teacher relationships will be fostered, as represented by the lower right hand visual in Figure 1. I contend this interrelationship among understanding the brain, fostering self-regulation, and developing strong, positive relationships will offer students opportunities to gain essential strategies that apply beyond adolescence.

I believe, in order for educators to effectively establish the interrelationships depicted in Figure 1, trauma-sensitive strategy integration should influence educators' approaches (Jennings, 2019; Souers & Hall, 2019; Zacarian, 2017). After all, "our brains were wired to survive—not thrive" (Souers & Hall, 2019, p. 153; Sousa, 2017). Comprehending how teens are

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likely to respond and react affords teachers opportunities to plan educational approaches proactively. Students can be taught how to be attuned to their personal reactions (Souers & Hall, 2019). Further, teachers can select strategies, including affective statements and questions, conferences, or restorative circles (Watchel, 2016) as ways to shape students' actions and reactions. Additional trauma-sensitive strategies include teaching with student strengths in mind (Zacarian et al., 2017) so students may successfully connect with content. Further, teachers can provide students with sensory-based activities (Craig, 2016), such as playing catch (Souers & Hall, 2019), which can assist with regulation. Finally, teachers can view lesson elements through a trauma lens and create ways to support students (Schwartz-Henderson, 2016). I believe that incorporating trauma-sensitive strategies can yield stronger relationships with all students—extending beyond trauma-affected students. Specifically, self-regulation can serve as a significant trauma-sensitive skill that can bolster student-teacher relationships (Brunzell et al., 2015; Craig, 2016; McInerney & McKlindon, 2014; Sousa, 2017)..

From my experience in the classroom, I have found self-regulation skills can mutually influence nurtured, strong relationships; I believe if educators model self-monitoring skills and explicitly teach self-regulation skills, educators' compassion can emerge. Established student-teacher relationships serve as relationship models; teachers demonstrate how relationships can endure, especially while managing challenging emotions presented by students (Craig, 2016). Teaching and modeling self-regulation skills further nurture strong student-teacher relationships.

Ultimately, teens need adults in their lives who thoroughly understand actions and behaviors may result as trauma-affected (Burke Harris, 2018; Crosby, 2015). Understanding the physiological nature of the brain's reactions to trauma provides educators with a comprehensive lens, absent of the often (mis)perceived belief that teens' reactions are their voluntary choice (Cole et al., 2005; Sousa, 2016). Although teens need to be responsible for their (re)actions, a supportive and understanding approach through self-regulation and relationships will assist teen

students in the development their abilities to critically think and take more responsibility for their lives.

Self-Regulation

Most educators can remember a time when a student reacted unexpectedly. Perhaps the student presented an emotional outburst that disrupted the classroom, abruptly barged out of the classroom, or even threw a punch. Regulation can be defined as “the ability to take in stimuli and manage emotional and behavioral responses accordingly” (Souers & Hall, 2019, p. 66). When students are unable to manage their reactions, they act in a dysregulated manner (Souers & Hall, 2016). I believe that dysregulated students can benefit from self-regulation strategies (Souers & Hall, 2019).

Teaching self-regulation strategies so students can self-modulate their emotions is a vital predictor of academic and social success (Cole et al., 2005). Trauma’s impact on student brains affects students’ abilities to regulate their emotional reactions. With an associated physiological response to stress, the brain response produces cortisol, activating the amygdala; this interferes with students’ abilities to attend to lessons (Holmes et al., 2015). Schwartz-Henderson (2016) stated toxic stress limits self-control and self-regulation development, negatively impacting these important skills. As a result, self-regulation skills are imperative.

Self-regulation strategies allow teens’ bodies to “organize sensory input, modulate arousal levels, and mediate responses to sensations” (Brunzell et al., 2015, p. 4). One important system of helping students is mindfulness; these activities can include music, yoga, deep breaths, songs, circle games, short bursts of exercise (Brunzell et al., 2015). Based on this information, I believe that mindfulness activities can result in increased emotional self-regulation, resulting in more focused learners. Further, establishing self-regulation opportunities allows adults to model responses for teens, which further bolsters strong teacher-student relationships.

Relationships

Strong relationships can support trauma-affected students (Crosby, 2015). These established relationships benefit *all* students, especially trauma-affected teens. As synthesized by Tough (2013), researchers in Minnesota contended that relationships change throughout childhood. I agree that dependable, reliable relationships can be beneficial when both students and educators actively engage, and I believe teens need teachers and staff to be willing and able to establish personal relationships with them.

Recently, Souers and Hall (2019) defined relationship as “a meaningful connection with another human being—in particular, a student’s healthy-enough, safe-enough relationship with a teacher” (p. 66). According to Walberg et al. (2004), establishing meaningful connections, especially between students and teachers, can also influence students’ abilities to thrive as learners. Walberg et al. stated, “Caring relations between teachers and students foster a desire to learn and a connection to school” (p. 210). Thus, establishing meaningful relationships with teachers can benefit students both as individuals and as learners.

Research also has indicated “relationships [are] the key” (Lane, 2006, p. 44) to unlocking student success. Strong classroom relationships require empathy, genuineness (Brunzell et al., 2015), and unconditional positive regard (Brunzell et al., 2015; Crosby, 2015) despite behaviors students may present in the moment. Further, teachers demonstrate they value their students by holding students to high yet realistic expectations and offering them active roles within the classroom (Crosby, 2015). Lane (2006) outlined restoring student/teacher relationships through language; her study indicated relationships “were a critical factor” (p. 43) in student success.

When students establish a strong relationship with a caring adult, I have found that they perform better (Mirsky, 2003). When the SaferSanerSchools trauma-sensitive restorative pilot program (Mirsky, 2003) was implemented, a school leader stated, “You cannot separate behavior from academics. When students feel good and safe and have solid relationships with

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teachers, their academic performance improves” (p. 3). Strong relationships benefit students’ social, emotional, and academic needs.

Students profit from classroom environments where they feel safe and cared about by teachers (Sousa, 2017). Tough (2016) referenced evidence that the best “lever” to improve children’s lives involves “the behaviors and attitudes of adults those children encounter every day” (p. 26). Relatedly, teachers’ approaches with students may have vital, direct influence on students’ progress. Viewing students with care and compassion allows the emphasis to be placed on, “‘What happened to this student?’ rather than ‘What’s wrong with this student?’” (Nealy-Oparah & Scruggs-Hussein, 2018, p. 12). Forging strong relationships provides all students a chance to meaningfully connect with an adult with whom they will interact throughout an entire year (at least).

What Is Still Needed

Trauma’s extensive prevalence indicates, as educators, we *all* interact with trauma-affected students daily, despite not knowing exactly who they are. In reality, we do not need to know who they are; all students will benefit from self-regulation opportunities and strong, nurtured teacher-student relationships. Because trauma “masks itself” (Sitler, 2009, p. 120), teaching in supportive ways supports *all* students—regardless of whether they have experienced trauma (yet). Reframing approaches with students can assist teachers when striving to meet students’ physical and emotional needs (Sitler, 2009).

I believe that teens anxiously await for educators to understand how the teen brain functions (Sousa, 2016, 2017). I agree with people like Jennings, 2019, Mirsky, 2003, Nealy-Oparah and Scruggs-Hussein, 2018, and Sousa, 2017, all educators—teachers, paraprofessionals, tutors, administrators, social workers, school counselors—must be willing to be open minded, learn about teen brains, and be willing to try new activities (e.g., mindfulness, brain breaks) that benefit students, and show honest compassion toward their students.

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When these elements are integrated within each classroom, students will feel supported in safe learning environments; then, teachers can move students toward emphasizing content. Until teens' social and emotional needs are addressed, content must wait (Sousa, 2017). Yet, content cannot wait for too long. Regulation and relationships, simply put, must be accepted and embraced as all teenagers' new rites of passage.

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