

Manual Down-Regulation of Affect

The functional capabilities of the mature brain develop throughout life, but the vast majority of critical structural and functional organization takes place in childhood. Indeed, by age three, the brain has reached 90% of adult size. The first 3 years of life (including the in-utero period) determine the mature, adult brain. If the child is raised in threat, chaos, and unpredictability, fear and trauma, without appropriate interactive, therapeutic intervention, the brain will reflect that by permanently altering the neural systems involved in the stress response.

Severely compromised attachment histories are thus associated with brain organizations that are inefficient in regulating affective states and coping with stress (Shore, 1997). This deficit is expressed in a failure to move away from homeostasis in order to turn on neurochemical stress responses when needed, and/or to turn them off and re-establish homeostasis when they are no longer needed. In other words, the ability of the brain to manage stress becomes impaired or never develops at all.

Chronic stress will wear out the parts of the body and the brain, especially the hippocampus in the brain. The hippocampus is responsible for memory, cognition and arousal. Dr. Martin Ticher and colleagues have noted hippocampal/limbic abnormalities in a sample of abused children. Another set of neural systems that become affected by chronic stress are the brain's neurotransmitters.

A traumatized child may therefore, exhibit motor hyperactivity, anxiety, increased resting heart rate, dilated pupils, and behavioral impulsivity, suggesting altered autonomic regulation at the basis of the brainstem (Perry, 2000). In other words, the child can easily begin pumping the fight/flight chemicals, preparing for a life or death situation, even in situations of relative calm and regressing into hind brain survival state, making automatic self, down-regulation of affect (self-control) impossible. This is the child who becomes over stimulated too quickly and spins out of control the more they are allowed to continue in their downward spiral. This is the child who frequently gets the diagnosis of ADHD when it is really PTSD (post-traumatic stress disorder).

Neuro-behaviorally speaking, and gleaned from the work of Judith Bluestone of the HANDLE Institute of Seattle, Washington, the vestibular system (the brain's traffic cop), needs to be working efficiently to direct information from the environment into the brain. If the child is completely over stimulated, then the vestibular system is overwhelmed, cannot do its job to help regulate the affective state, so therefore needs to be shut down, so it can be reset and start over, much like turning the computer off and re-booting. Jumping up and down on a pogo stick, trampoline, running as hard, fast and long as one can, can help to make this happen, but what if the child is too small for a pogo stick, too oppositional to run until they are worn out and CPS says no to trampolines? Then manual down-regulation of affect in a mother's arms may be the only alternative repair, and it is definitely an interactive repair.

When a small baby is squalling and terrified, does a mother put it down? What if the infant is arching its back and pushing away from the mother? No, a mother holds on to her baby cooing, rocking, soothing, singing, saying things like “mama’s right here,” until the child can return to a calm, regulated state. The mother is literally using her right limbic system to calm the terrified, unregulated infant’s, until the infant’s brain reaches a state of maturity so that it can down-regulate itself. A mother’s loving, down-regulation of affect specifically impacts the development of the right brain (where we feel emotions), resulting in a child being able to modulate emotion via the right limbic system on its own (Shore, 1994).

The more that the child is allowed to be in a fully aroused, fight or flight state, then the more the fight or flight state becomes the norm. The more it becomes the norm, then other neurological systems that should be developing become impaired or don’t come on line at all. Learning can not take place when one is on fight or flight. It is also now thought that the process of re-experiencing positive affect via the mother following a negative experience of affect may teach a child that negativity can be endured and conquered, creating resilience (Chapple 1970 in Shore’s paper).

Therapeutic interventions must activate those portions of the brain that have been altered by trauma. Understanding the persistence of fear-related emotional, behavioral, cognitive and physiological patterns can lead to focused therapeutic experiences that modify those parts of the brain impacted by trauma. The earlier we intervene, the greater good we can do. Primary, we need early identification and aggressive, pro-active interventions that will improve our ability to help traumatized and neglected children (Perry, 2000).

I advocate, when a child is in that fight or flight state, over stimulated past the point of no return and becoming a danger to self or others, an alternative to restraint. Restraint, as defined by state standards can be frightening to the child and push the child further into a state of fight/flight and mistrust. How does turning a child away from the mother in a restraint help to create trust between mother and child, when the child cannot see the mother’s face? Would we do that to squalling infant? The child should be cradled, infant like in a mother’s protective arms, mimicking the mother-infant hold, so that the mother can calm, soothe, softly talk to and rock the child back to a calm, effective state, using her body and voice to do so, using her limbic system to repair the child’s limbic system that didn’t get developed in infancy or perhaps was impaired in-utero due to abuse and neglect.

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