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Empowering Balanced and Transformative Lives

Physiological Resets

Superficial Cutting becomes an enduring way to cope with certain states-of-mind because it triggers physiological actions that literally change the chemistry and functioning of the person's brain. There are non-injurious stimuli that will also change brain functioning.

Physiological Resets should be thought of as a two-part neurobiological loop. The first part is the "Interrupt" which can last from a matter of seconds to perhaps a couple minutes. The second part is the "Anchor" which takes about two to five minutes to reset the nervous system in a more enduring fashion.

The Interrupt, what I think of as the "snap-out-of-it" intervention, is an action that delivers a jolt to the brain's anterior cingulate cortex and to the frontolimbic system, instantly distracting parts of the brain and creating a window in which a different state-of-mind can be established.

The most practical and effective Interrupt that I've extensively used is to have the client wash their face, especially around the eyes and upper checks, in cold water; followed by massaging dry their face at whatever level of gentleness or vigor feels most effective to them.

I've frequently used cold-water face washing as a transitional tool at the end of processing an incident, just before having the client rejoin the group or rejoin regular programming. I've also used cold-water face washing as a preventative action when clients self-identify that they are starting to think about self-harm. A big advantage of this technique is that it feels, to the client and to their peers, like a relatively normal thing to do. It also requires minimal preparation and is an available action in most situations.

According to research literature there are other physiological resets that will interrupt a hyperactive amygdala. I've experimented with most of these; however, they tend to feel gimmicky and I suspect a lot of their change power comes from novelty. At least in my experience, they seem to stop working as well after the first time and I suspect that a lot of their initial power came from the high-level of engagement the client felt with the staff person facilitating the intervention. I also have a philosophical issue with the mixed-message that a way to manage emotional pain is to interrupt it with physical discomfort – even if that physical pain is non-injurious.

Nevertheless, the research literature identifies the following Interrupt techniques:

- Submerge your face in ice water for 15 to 30 seconds.
- Place an ice-pack over your eyes and upper checks for one to three minutes.
- Hold a cold ice cube and focus on the burning sensation.
- Press a cold object against your wrist for a minute or two.
- Snap a thick rubber-band against your wrist.
- Suck on a super-sour candy, lemon juice, or hot sauce.
- Deep muscle massage.



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- Wall pushes, squeezing a stress ball or therapy putty, or other muscle clenching exercises.
- Controlled auditory overload with white noise or high-frequency beats.

The Anchor builds off of the Interrupt to produce a longer lasting physiological change. My preferred anchor exercise is 4-7-8 breathing. Please note that to be truly effective, breathing exercises work best when they are practiced when the client is relatively calm. That practice lays the physiological groundwork for the intervention to work when the client is upset.

There are a huge number of breathing exercises that all can work. Breathing is part of the autonomic nervous system – physiological actions that happen without a person having to consciously think about it. However, breathing also responds to conscious control. Thus, it serves as a powerful way that people can purposefully take charge of and leverage their autonomic brain functions (including things like heart-rate, blood-pressure, muscle tension, and skin conductivity).

I particularly like the 4-7-8 breathing technique because it combines several factors that work together to make it more powerful.

- Counting while breathing engages the analytical parts of your brain and distracts from negative thinking.
- Deep inhales send air to the bottom of your lungs (known as diaphragmatic breathing where your belly sticks out a little). Holding your breath then gives your lungs time to extract more oxygen from the breath. Increased oxygen has a calming effect on the brain.
- Slow breaths in, holding your breath, and then slow controlled breaths out require controlling the large muscles in your chest. This muscle control adds to an overall feeling of being in control and being safe.
- Breathing in through your nose, but exhaling through your mouth has a calming, in-control effect.
- Keeping your tongue in the yogic position (gently resting the tip against the roof of your mouth) creates a conditioned anchor point. After much practice, simply putting your tongue in that position will trigger a relaxation response.
- The exercise can be done with eyes open or shut, sitting or laying down; whatever position works best for a client, as long as their stomach has room to expand as part of diaphragmatic breathing.

One breathe cycle consists of breathing in through your nose for a slow count of 4, in as relaxed a way as possible holding your breath for a count of 7, and in a slowed and controlled fashion exhaling through your mouth for a count of 8 (frequently accompanied by a whooshing sound). All of this is done while sitting or lying down in a relaxed position, with the tongue in the yogic position. With practice the count gets slower. Typically, a set of 4-7-8 breathing includes either 4 or 8 breathe cycles.