A Neurologically-Informed Explanatory Case Study for Somatic Quieting (Handout)

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Author Note

The author is a practitioner of Emotional Resolution® and has not received nor will receive compensation of any kind for the presentation of this work.

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Abstract

This explanatory case study illustrates the psychological intervention of somatic quieting, a natural process of the autonomic nervous system. The intervention works by using passive emotion regulation, which is unlike emotion regulation such as behavior control. The study looks at a client who after four months no longer met the criteria for major depressive and generalized anxiety disorders, as diagnosed at the outset of therapy. A neurological review posits how interoception facilitates somatic quieting. Further research of the efficacy of somatic quieting intervention may provide evidence that the process is an invaluable tool for psychotherapy, especially brief therapy, as well as for other helping professions. The intervention offers possibilities for alleviating stressors of the modern human condition, such as COVID and civil unrest, and also reducing burdens occasioned by the shortage of mental health professionals.

Keywords: somatic therapy, psychological intervention, passive emotion regulation, anxiety and depression, interoception

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Somatic psychotherapies have been gaining momentum as effective approaches for treating patients with histories of trauma, bolstered by the popularity of Bessel van der Kolk's *The Body Keeps the Score*. Certainly, the September 11, 2001 tragedies catapulted worldwide interest in trauma as thousands of people in the United States within one day were directly affected by the attacks. Yet in the decades before, the healing arts had already made progress in identifying evidence for the role of the body in trauma. Eugene Gendlin published a manual on the experiential procedure of Focusing in the Winter 1969 APA publication, *Psychotherapy: Theory, Research and Practice*. Peter Levine began his evidential journey with a client in 1969 who relived and remembered a traumatic event during a body-awareness and relaxation exercise (Levine, 2010). In the 1990s, Didier Godeau, a France-based physical therapist observed a client calm anxiety simply by observing sensations (C. Bertelli, personal communication, April 18, 2020). More recently, Pat Ogden and Janina Fisher published works based on their development and practice of sensorimotor psychotherapy.

Notwithstanding attention on trauma, body-based approaches have demonstrated significant efficacy for treatment of a range of brain-based pathologies, including chronic pain. Its progress offers promising outcomes in a post-pandemic milieu. The need for intervention cannot be overemphasized as the life threat COVID-19 brought increased incidence of anxiety and depression (Clemente-Suárez, et al., 2021).

The concept of emotion as bodily sensations is at least centuries old. William James (1884) defined emotion as a set of bodily changes and illustrated an example of seeing a bear, describing the emotion of fear as the physiological changes that led to and include running from the bear. The Old Testament alludes to emotion in the body as Eknoyan (2005) wrote, "the

human kidneys are cited figuratively as the site of temperament, emotions, prudence, vigor, and wisdom." In the 1960s, the new field of psychophysiology merged various disciplines consequentially revealing correlations between physiological and psychological processes (Porges & Furman, 2011). Paul MacLean (1970) as cited by Dalgleish (2009) developed a model for human emotion from an evolutionary perspective proposing "that emotion experiences involve the integration of sensations from the world with information from the body" (p. 357). And then there are philosophical mind-body perspectives dating back centuries (Chambliss, 2018) and millennia (de Silva, 2017; Yuasa & Kasulis, 1987). But in recent years, the number of different somatic approaches used in psychotherapy have proliferated (Davis, 2021).

With growing evidence of the efficacy of somatic therapies, body awareness has become a more common topic of discussion even among therapists without somatic training. Existing psychotherapeutic approaches already incorporate body awareness. Gestalt theory believes that a person's ability to change is dependent on one's acceptance of their current state, and therapy may begin by exploring one's present sensory experience (Toman & Woldt, 2005). ACT, or acceptance and commitment therapy, applies mindfulness, which may explore one's bodily sensations (Hayes et al., 2013). Psychodynamic psychotherapy has long considered physiological evidence associated with the therapy process (Marci & Riess, 2009). Without sufficient evidence-based research, somatic therapy as a whole may have few opportunities for widespread acceptance in healthcare. Though psychologists have long been intrigued by emotions and physiology, only in recent decades have advancements in neuroimaging enabled researchers to provide useful evidence for understanding how these therapies may help.

Advances in research using functional MRI, have provided endless possibilities for exploration into the brain. But if emotional experiences involve the body, fMRI would be

insufficient for a complete understanding of emotion. This explanatory case study endeavors to illustrate the need for study beyond the brain in answering what constitutes emotion within the entire nervous system, how fear responses change, and how emotions neurochemically impact the sympathetic and parasympathetic nervous systems sometimes leading to physical illness. It provides an introduction to a body-based intervention called *somatic quieting*, the effectiveness of which may reflect recent discoveries in neuroscience research, and it explains how the intervention can expand somatic psychotherapy into a modality for any patient or client, not only those with trauma histories. A literature review revisits emotion regulation with a different lens, examines physiological evidence involving neurotransmitters that supports theory that emotions correspond to bodily sensations, and considers studies of trauma as indicative of how emotions with negative valence can be prevented from calming.

The Somatic Quieting Process

Somatic quieting, also called *viscerosomatic quieting* as coined by physician Olga Ramm, employs a person's interoceptive awareness of their body's sensations, and sometimes proprioception, while the person experiences an emotion. Regulation of the emotion occurs passively, without control of behavior or the emotion itself. While controlled emotion regulation may alter a person's emotional state, it does not necessarily change the affect of a situation. The objective of the somatic quieting intervention is to remain conscious and attentive to the sensations associated with emotions as the sensations change. Somatic quieting occurs as the sensations change. To accomplish this, the patient must do nothing except feel their physiological sensations via interoception without controlling, avoiding, or trying to change them. It is not unlike Vipassana meditation in which practitioners only observe their bodies; though the goal of Vipassana meditation is personal transformation, whereas the goal of somatic

quieting is to calm hyperaroused emotions, a process that typically lasts no more than a few minutes.

The following is a transcript of a somatic quieting session the author practiced on herself and recorded when feeling nervous before participating on a radio show:

> "I close my eyes so that I can block out what I see and pay attention to what I feel in my body. I feel a little bit of tightness in my chest. I feel like it's a little hard to swallow. Just feel like it's a little hard to breathe. I'm gonna just pay attention to these sensations and do nothing else. I'm just observing what the sensations are doing without trying to control them. You can hear my voice is a little shaky too. And, uh, my leg just relaxed, my left leg just relaxed. My breathing is getting a little easier. My chest is not as tight… I feel my body calming. I feel my nervousness calming. I'm aware of the noise outside; there's wind blowing… Anyway, I feel a lot calmer." (Kim, 2021, 1:27)

The action of paying attention may seem simple, but for many people with poor interoceptive awareness, attention on bodily sensations is not easy. This is often the case among people who are neurodivergent, particularly highly-distractible clients with ADHD and autistic clients with high mental rigidity. Observation is the only conscious action. The challenge of the process is in allowing the physical sensations to change on their own without control them. In the example, the relaxation of the left leg was not forced but automatic. Though breathing could be controlled cognitively, it was not. Simple observation enabled passive, or autonomic regulation of a hyperaroused nervous system. When the sensations calmed, external stimuli became more apparent as engagement of interoception decreased. The only cognitive control was maintaining attention as the sensations changed.

Emotional Resolution. In this study the author uses a set of protocols developed by the Emotional Health Institute (EHI) based in San Francisco, California, called Emotional Resolution, or EmRes. Cedric Bertelli, an early practitioner and a developer of the methodology, founded EHI in partnership with EmRes practitioners in Europe, including Jacques Fumex, a gastroenterologist, Dominique Monette, a medical doctor and kinesiologist, and Aleth Naquet, a clinical psychologist, basing their work on a discovery by physical therapist, Didier Godeau, who witnessed anxiety calm by asking a client to simply observe her internal body (C. Bertelli, personal communication, April 3, 2021 and April 18, 2020). EHI and partners continue to develop innovative methods including one using Ericksonian hypnotherapy without trance, which the author has found beneficial for treating trauma from adverse childhood events, PTSD, depression and other long-term conditions.

Literature Review

Emotion Regulation

Despite emotion regulation receiving increased attention in the early 2000s, literature has focused it on early life stage development (Lewis et al., 2006; Morris et al., 2007; Schore & Schore, 2008), or cognitive control (Gross, 2002; Gross, 2015; Koole, 2009; Saraiya & Walsh, 2015; Schweizer et al., 2013). Little if any attention has been given to regulation that occurs by itself, such fears that calm by simply allowing time to pass. Gross (2015) describes emotion regulation as part of a cognitive process in which perception, valuation, and action form a framework for analyzing various neural systems. His process model follows a pattern of situation, attention, appraisal, response, and back to the situation. Control of emotion persists as the accepted concept of emotion regulation across life stages. In such frameworks, emotion regulation and the definition of emotion itself expects a behavioral response. Are emotions

without responses not emotions? Some discussions (Coats & Blanchard-Fields, 2008; Blanchard-Fields et al., 2004) describe "passive emotion regulation" as withdrawal from conflict or avoidance, which is not emotion regulation at all.

Why do some emotions calm by themselves? A child who rides a bicycle may fall off, temporarily terrified as the bike loses balance. After some time, the child finds courage or motivation to get back on the bicycle, and then rides as if the fall never happened. How did the fear transform? Conversely, why do some fears remain? The answers may lie within an understanding of consciousness and attention.

Physiological Evidence

Loss of consciousness creates a sensory imprint. Xue et al. (2022) studied neurophysiological reactions when consciousness is briefly lost on students from the plains of China who were studying at university in oxygen-light Tibet, evidencing that mental states are affected by loss of consciousness, which can occur with reduced oxygen. Decreased executive function may have adverse effects on the nervous system with stress-induced stimuli, whereas orienting attention (or ability to focus) mitigates the effects of stress. Xue et al. wrote:

> The stress response plays an important role in the physiological origin of mental states. Executive function has been counted as a promoter of an individual's plasticity in response to stress and is closely relevant to fewer mental complaints that are likely to weaken the sense of perceived stress based on the degree of stressful, unpredictable, and uncontrollable events in daily life (Shields et al., 2017). (p. 178)

The studies of Xue et al. (2022) and Shields et al. (2017) may support the possibility that sensory information integration in the presence of stress is incomplete due to loss of consciousness resulting in a compromised mental state. Without consciousness, a mental state,

such as an emotional experience with negative valence, may be blocked from emotion regulation. The body, holding sensory information presumably acquired via the unconscious visceral sensory information integration pathway, remembers the sensory input as bodily sensations at the time of the stressful moment. At the same time, the stress causes dendrites in the hippocampi to shrivel (McEwen et al., 2012), disconnecting the sensory memory from consciousness, thus irrationally associating aspects of the experience with the memory. The sensory memory may be triggered by reminders of the stressful moment as an emotion with negative valence, yet that memory becomes unable to calm by cognitive control, hence following the pattern defined by Gross (2015): returning to situations with an emotional response. When *the body keeps the score*, it is remembering that sensory information.

Interoception. Somatic quieting may enable emotion regulation passively, not by withdrawing or avoiding, but by orienting attention and integrating the visceral sensory information integration pathway with the conscious sensory integration pathway using interoception. The close but separate sensory pathways of attention and interoception share regions of the brain (Zaki et al., 2012). Presumably, directing one's attention occurs in the prefrontal cortex and interoception, in the anterior cingulate (Gainotti, 2020) located directly behind the prefrontal cortex. (See Figure 1.) When a war veteran's body remembers the intense stimuli from a day in battle, their interoception of them is also intense. If they can learn to tolerate the intensity of the sensations, they can use orienting attention to allow the body to process them, through what the author posits is an autonomic nervous system function. While bringing awareness to these sensations as the body processes them, the client needs no longer to control that which triggered the emotions nor must they control the body. Instead they become a neutral bystander observing an autonomic process and doing nothing else.

This act of doing nothing is akin to nonjudgement in acceptance and commitment therapy; the interoception, reminiscent of Steven Hayes' directing clients to simply notice bodily sensations (Hayes et al., 2013). The somatic quieting process encourages the observer to notice not the concept nor subjectiveness of emotion, but specifically the physiological sensations that seem to accompany emotions and how the nervous system changes them. Any attempt to control emotions or sensations disrupts the quieting process.

How does it work? Neuroscience studies have increasingly been exploring the insulae, which are mediators for interoception, the basis of the somatic quieting intervention. Interoception connects the vagus and peripheral nerves to the insula wherefrom attention, perception, and cognition receive somatic signals (DeVille et al., 2018; Khalsa, et al., 2017). While pain may be sensed through the interoceptive cortex within the insula of the brain, memories of emotional events and imagery can be recalled via the anterior cingulate cortex (Anders et al., 2004; Craig, 2002). One study found that even words could illicit viscerosomatic reactions via the interoceptive cortex (Wilson-Mendenhall et al., 2018). Both the interoceptive cortex and the anterior cingulate cortex seem to be active participants of somatic quieting. The peripheral nervous system, through which many sensations are felt, connects to the central nervous system by what physiologists call viscerosomatic convergence (Cervero, 1993). Viscerosomatic neurons' connection to the hypothalamus and cerebrum, or front of the brain (Burstein, 1987), and the hippocampi, may act as relays to cognition (Sahay et al., 2011). Recent studies suggest that bilateral and reciprocal connections from the prefrontal cortex (PFC) to the amygdalae and insulae via the anterior commissure mediate emotional responses (Gainotti, 2020; Craig, 2011; Morris et al., 1999). Interoception may utilize the PFC to direct attention and then it engages the anterior cingulate to "feel" the bodily sensations of emotion through the insula.

Somatic quieting begins to occur when the client remains attentive to the sensations, or maintains interoception, as the client perceives sensations changing. As the sensations change passively, without cognitive force, the nervous system balances toward homeostasis, or calm.

The Nervous System. Neuroscience research on emotion in the past had focused on the central nervous system, specifically the brain, with many studies that examined specific parts of the brain and their functions, yet studying only basic emotions such as anger, sadness, happiness, and disgust (Lindquist et al., 2012). One study by Anders et al. (2004) provided evidence of physiological reactions associated with varying arousal or valence, but it also looked at basic emotions. The problem with many of these studies, in addition to their oversimplification of design, is that their methodology does not accommodate the emotional experiences of people with severe psychopathologies. One exception is a study by Lanius et al. (2003) who studied a husband and wife, both with posttraumatic stress disorder (PTSD) acquired from the same car accident, and showed how differently PTSD can affect different people. Barrett (2017) has viewed the human experience from a more comprehensive lens and proposed a theory of constructed emotion to holistically consider multiple systems of the body in keeping with human complexity. Though Barrett has provided a framework for broader perspective, her work maintains the popular concept that emotion regulation is controlled. Subsequent studies have continued with this concept and have based their theories and methodologies on her definition of emotions as "predictions" (Ainley et al., 2016; Barrett & Simmons, 2015; Seth & Friston, 2016). These studies examine interoception "errors" assuming people make inaccurate assessments of their own bodily sensations. Outcomes from somatic quieting sessions may expose potential errors in these studies' frameworks.

As for the mind-body pathways that make up emotional experience, evidence shows how the peripheral nervous system connects to the central nervous system by what physiologists call viscerosomatic convergence (Cervero, 1993). Evidence also shows viscerosomatic neurons' afferent connection to the hypothalamus and cerebrum (Burstein, 1987), and the hippocampi, may act as relays to cognition (Sahay et al., 2011). One hypothesis is that these pathways from stimuli to response are rerouted during the somatic quieting process, altering an emotional experience from painful to calm. (Figure 2.) The experience becomes stored as a long-term memory in *engrams*, believed to be stored on engram cells on different parts in the brain (Tonegawa et al., 2018). One model of memory formation suggests that different signal pathways determine similar behaviors over time, suggesting formation of irrational behavior.

The mind-body connection also has evidence at the molecular level. Following the discovery of endorphin receptors, researchers in the 1980s identified more than 50 different neurotransmitters related to emotional experience, supporting belief of psychosocial interventions—i.e., human connection—for mental health support (Pert et al., 1985; Pert et al., 1998). How sensations are felt in the body may be because of these neuropeptides, which are short chains of amino acids and are present in the brain and other parts of the body, including nonneural tissues (Borbély et al., 2013; Pert et al., 1998). Similar to the way endorphins create a "natural high," neuropeptides may be responsible for the valence and arousal level of emotions. Neuropeptides are implicated in countless medical and alternative healing studies as factors of pain and illness. One study by Tozzi (2014) stands out concerning the site of peripheral nerve endings, the fascia, or connective tissue that holds in place every organ, bone, blood vessel, nerve, and muscle (Johns Hopkins Medicine, n.d.). Tozzi described a number of different ways that a form of memory may be stored in the fascia and hypothesized that it may be recalled with

manual manipulation and mobilization of particles through bodywork (such as massage). Could the sensations felt with emotion be the result of the activation of certain neuropeptides by stimuli that invigorate corresponding neuropeptides in the brain? While manual manipulation may provide temporary relief of neuropeptide activation, perhaps somatic quieting can relieve it more permanently by rerouting the emotion pathways elicit negative memories, and then replacing activated neuropeptides as the nervous system regulates, thus changing the way memories' sensation engrams are stored. Evidence for this possible rerouting was found by McEwen et al. (2012), particularly in the hippocampi where replacement of neurons, remodeling of dendrites, and synapse turnover—that is, termination and formation (Puro et al. 1977)—have been found to occur. If the brain can manipulate which connections are terminated and reformed, then corresponding neuropeptides could certainly change what they activate.

The Role of Trauma

Answers to how sensations become tied to emotions, and what prevents passive, or autonomic, emotion regulation from occurring, may lie within our understanding of trauma. If emotion experiences are formed with sensory input from external and internal environments, at some point, this sensory information must become stored. When events are recalled, by association some of that sensory information is also recalled. But what happens when we are unable to recall memories? Bessel van der Kolk (2015) famously conceptualized trauma having treated combat veterans and others with trauma histories who had difficulty with recall: "Trauma results in a fundamental reorganization of the way mind and brain manage perceptions" (p. 21). In addition to difficulty with recall, many of his patients were mentally disconnected from their bodies, unable to perceive body sensations, instead feeling numb.

The integrity of hippocampal circuitry is crucial for memory (Sousa et al., 2000). When stress occurs, causing atrophy to dendrites (McEwen et al., 2012), circuit integrity is compromised and memory and perception may be disconnected, as it seems to be supported by Xue et al. (2022). Unless the brain cognitively mediates the effects of stress, activated stimulus-response pathways short-circuit. Short-circuiting creates "feedback loops" of stimulus-response patterns characterizing posttraumatic stress, and overstimulation within these feedback loops hypothetically lead to vagal response patterns, that is, behavior activated by an uncontrolled part of the nervous system. The effects of stress—regardless of intensity—seem to solder connections within the stimulus-response pathways of hyperaroused emotions. In the same way connections to memory may be lost by atrophy of hippocampal dendrites, connections to autonomic emotion regulation may also be lost with loss of consciousness, as well as by shock. Bogliacino et al. (2021) found evidence of cognitive impairment effects of shock on mental health during the COVID-19 pandemic. Though the conscious brain in the cerebrum, including the prefrontal cortex, is unable to recall memories, subconscious perception reminds the body's engrams of environmental input and internal stimuli. The body's recall becomes hyperaroused emotions. Emotions would by this framework not be predictions, but the body's memory exactly as it remembers its somatic experiences at the moment when stressors occurred. The greater the stress, the stronger the emotion.

As evidenced by the results of this case study, somatic quieting may be a tool for manipulating stimulus-response circuitry and creating new neural connections to integrate past experiences, replacing heightened feelings with regulated emotions, and enabling the experiences to become long-term, non-hyperaroused memories. It may also terminate trauma's short-circuited feedback loops allowing somatic memory to become new somatic memories of calm.

With controlled emotion regulation, including psychoeducation, the brain merely reorganizes, sometimes creating new symptoms (Creamer & O'Donnell, 2008). Emotions need the autonomic nervous system in order to reconfigure disordered stimulus-response patterns.

Context and Method

Case Review

The client in this case study, who shall be called Carlo, is a Latinx male in his 20's diagnosed with major depressive disorder and generalized anxiety disorder, and has a history of depression and anxiety since childhood. Carlo was raised an only child with parental neglect. His mother was diagnosed with borderline personality disorder. Carlo described his father as consistently tell him to "shut up" and "You don't know what you're talking about." When he began therapy, his affect was constricted. He was struggling with grief from the loss of his stepfather 8 months prior, and had been struggling with finances. His DASS-21 assessment total was 44, measuring "extremely severe" for depression (17) and anxiety (11) and "severe" for stress (16). Carlo had a historical diagnosis of ADHD during childhood; however, ADHD symptomology was not prevalent in his presentation. Though he described himself as unable to "stay on topic," during sessions, he was always attentive and never presented with circumstantial nor tangential speech. He is a moderate drinker and smokes cannabis 1 to 3 times a week.

Somatic Quieting in Psychotherapy

In the first session, Carlo was anhedonic with constricted affect. He demonstrated interoceptive awareness and had no trouble identifying sensations in his body associated with depressive feelings and did not confuse feelings in the body with emotions activated in the brain. Somatic quieting was used in six of the first seven sessions including the first session, and then in six of the following 21 sessions. As time progressed, Carlo needed fewer somatic quieting

interventions. He only felt the need for guidance when situations arose. In the following scenario in which the EmRes protocol is used, the situation Carlo has experienced involves racial microaggressions at work.

Therapist: Would you like to resolve that [reaction to the microaggression]?

Client (Carlo): [Nods head.]

Th: Okay. Tell me again in present tense what happened, and raise your hand when you feel a shift.

Ct: [Closes eyes.] I'm walking up the stairs. I get to the room. My co-worker's desk is right there. He looks at me [Raises hand] and says–

Th: What do you feel in your body right now?

Ct: Some tension in my head and in my back.

Th: Do nothing. [Pause.] Let the sensations change. [Pause.] Tell me about the changes as they happen.

Ct: My neck is loosening up.

Th: Let it change.

Ct: My shoulder is relaxing.

Th: Let it change.

Ct: My lower back is released.

Th: Let it change.

Ct: My forehead is relaxed.

Th: [Pause.] Now when you think about the situation, how do you feel?

Ct: Annoyed.

Th: I want to invite you to go back to the situation.

The client knows the drill and goes straight into the protocol sequence.

Ct: I'm at my co-worker's desk. [Raises hand.]

Th: What sensations do you feel?

Ct: Tension in my forehead.

Th: What else?

Ct: And in my shoulders.

Th: Observe the sensations. Tell me about the changes.

Ct: My forehead's relaxing.

Th: Let it change.

Ct: My shoulder's relaxed.

Th: [Pause.] How do you feel about the situation now?

Ct: Indifferent, I guess.

Th: Indifferent. What does that feel like?

Ct: Not much. It doesn't really bother me.

Th: Okay. You can open your eyes.

In debriefing, the therapist asks about the situation to see what insights may have arisen. The therapist learns that the client initially was feeling defensive toward the microaggression, which reminded the client of an earlier incident in which a fight nearly occurred with a White male. The therapist checked in during a subsequent session with the client on similar situations to see how microaggressions may still affect him. He reported having reduced affect around otherwise-triggering situations. Because this client does not have physical trauma history, the protocol used for this situation could be simple and create an immediate change.

Research Methods

The client was willing to participate in this case study and signed a consent form. The somatic quieting intervention was transcribed by hand during the session. Data was collected from progress notes, self-administered assessments, and intake forms. Results from DASS-21, administered at the start of therapy and after the 28th session, were collected in a spreadsheet, dated, and marked with data from progress notes after they were examined for subjectivity. DASS-21 questions were also reviewed during the 17th session.

Results

Within 15 sessions, Carlo's affect broadened. He had learned and had been practicing somatic quieting on himself especially during moments of grief. Carlo did not use many words to describe his feelings. After 16 sessions within 4 months, Carlo no longer met the criteria for either major depressive disorder nor generalized anxiety disorder. He reported a reduction in depression and anxiety symptoms. During the 17th session, he answered all but two DASS-21 statements as "Sometimes" or "Never" except for two statements on stress, to which he answered "Often". (A documented assessment is not available from that time.) After 28 sessions in 8 months and increased stress from relationships, Carlo's DASS-21 total was 17, testing normal for depression, moderate for anxiety, and mild for stress. In later sessions during which Carlo wanted help with his relationship with his mother, the therapist used an advanced protocol of EmRes using non-trance Ericksonian hypnotherapy.

Discussion

Guiding clients through the somatic quieting process is not without risk. Clients who have experienced physical trauma or experienced overwhelming sensory experiences may have difficulty with interoception. Somatic Experiencing studies have already indicated difficulty

with sensations among participants with posttraumatic stress disorder (Brom et al., 2017). Combat veterans and victims of torture or sexual assault may have intense sensory memories and find body sensations to be too strong to bear in a simple somatic quieting session. Such clients may symbolize sensations to cognitive defuse from the them, or they may benefit from Ericksonian hypnotherapy through which practitioners encourage symbolism and client volition to acclimate clients to the viscerosomatic experience of EmRes. However, some clients may be unable to symbolize visually, or have difficulty conceptualizing emotions as sensations. Some clients may be highly distractible and have difficulty attending to interoception. They may become frustrated and become unwilling to engage in interoception. Others may simply have poor sensory awareness. Psychotherapeutic tools and exercises may help raise interoceptive awareness and skill depending on clients' needs. Artistic clients may decline from quieting emotions as strong emotions are often catalysts for creativity. It is important to remember that only emotions that clients want to calm should receive somatic quieting intervention.

For psychotherapists, somatic quieting intervention can easily be incorporated into talk therapy. It is especially easy to use with gestalt therapy or acceptance and commitment therapy. Within a person-centered conversation, the therapist may simply engage the client's interoception when the client feels an uncomfortable emotion by asking, "What are you feeling in your body right now?" The crux of the process is allowing—not forcing—the sensations to change, thus theoretically reengaging the autononomic nervous system to pick up where it left when the original unconscious stressor occurred. Somatic quieting intervention does not need to be restricted within healthcare but the intervention can be taught to anyone in education, emergency services, and law enforcement. Clients, patients, and students may also learn to practice on themselves.

Conclusion

Experience of emotions is not relegated to a single area in the brain, but utilizes the entire nervous system and nonneural systems. As such, emotions may have very different somatic imprints between people. Unlike panic—which the author does not consider an emotion but a symptom of feedback along vagal pathways, precipitating after obvious or unnoticed worry—emotions are associated with sensory memories that are unique to the individual. Though some emotions have similarities between people, such as the physiological responses of fight, flight, or freezing, the intensity and progression of sensations will likely be different. Some clients process sensations instantaneously, particularly children. Some child clients of the author opened their eyes after less than one second, no longer bothered by previously disturbing memories. Unlike Gross' situation–attention–appraisal–response–situation model, somatic quieting enables patients to process emotions within a framework of situation–attention–appraisal with no need for response nor to return to the situation, except to check whether situations still induce emotional dysregulation.

The hypothalamus may play a significant role in the somatic quieting process. It not only has a role in the sensorimotor response to danger signals from the amygdala, but it also releases neuropeptides known as orexins to help the autonomic nervous system reach homeostasis (Kuwaki, 2021). Interestingly, the same neuropeptides responsible for homeostasis, orexins or hypocretins, lack during loss of consciousness in narcolepsy. This brings to question whether loss of consciousness in general is associated with orexin abatement, possibly leading to short-circuiting connections to agents of autonomic regulation. Perhaps the somatic quieting intervention — by engaging left hemisphere attention to emotional-sensory imprints and connecting the right and left amygdalae and insulae (Gainotti, 2020) — reroutes signals that

otherwise lead to dysregulated behavioral responses and is thus able to engage the hypothalamus for homeostasis.

Mental health providers tend to resist using an innovative therapy that has not yet been formally researched. The need for formal research cannot be understated as the need for mental health services grows while current research generally is not providing solutions to reduce the burden of mental illness (Hunt et al., 2019; Kazdin & Blasé, 2011; Owen et al., 2019). Further research begs to answer how emotions are passively regulated and whether the autonomic nervous system is employed in that regulation. Perhaps orexins play a role in autonomic regulation of dysregulated emotions. Such research could demonstrate that somatic quieting is an effective intervention for use in brief therapy. This could lead to helping a population of people underserved by the shortage of mental health professionals. The gravity of the whole of society's mental health leans in favor of innovation (Lee et al., 2007; Taylor, 2010).

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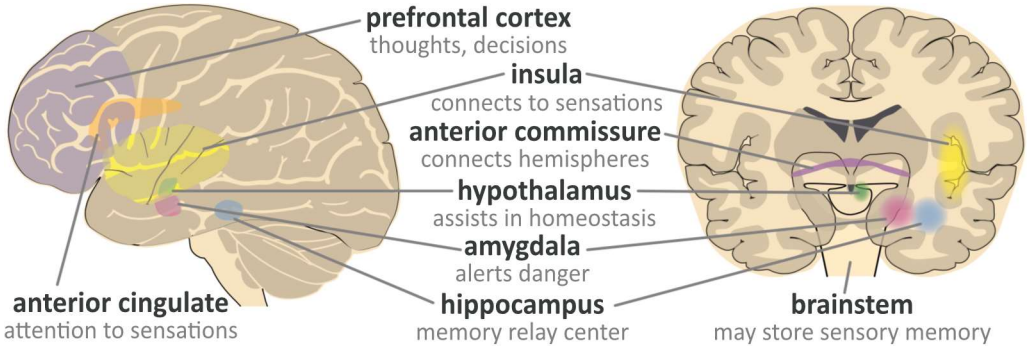
Appendix

Figure 1.

Sagittal view and coronal cross-section of brain.



Note: Parts of the brain are responsible for many functions. Listed are parts likely activated in somatic quieting. Integration may occur by engaging conscious attention (prefrontal cortex and anterior cingulate) to sensations (via insulae) without sensorimotor control.

Figure 2.

Physiological Map of Emotion Imprinting and Somatic Quieting