# **Voicework and Sound Healing**

Overcoming the Silencing Response and Unlearning Voicelessness

# Nicole Cowans, Karen Roller

### ABSTRACT

This review article outlines the theoretical and practical consonance between voicework, Integral Sound Healing, and traditionally studied somatic practices. It highlights the trauma processing and empowerment value of structured voicework to reclaim one's voice from systematic silencing by oppressive structures and individuals. The authors propose voicework and integral sound healing as relevant to incorporate in somatic psychotherapy to support clients in resolving systematic silencing and self-assertion.

Keywords: Fitzmaurice Voicework, Integral Sound Healing, silencing response, voicelessness

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> ... therapeutic sound is a process that can shift brain waves into a more optimal state of desired consciousness...

itzmaurice Voicework (FV) and Integral Sound Healing are rooted in ancient healing modalities, with the potential to be powerful somatic intervention tools for clinicians' self-care and as therapeutic interventions. FV and Integral Sound Healing may be used in a trauma-informed manner to "unlearn voicelessness" (Hardy, n.d.) that has been incorporated to cope with the silencing response of privileged, domineering authority figures across the lifespan. The silencing response has been studied with a validated scale as a measure of compassion fatigue in therapeutic relationships (Chun et al., 2023). The current authors posit that patriarchal and white body supremacist systems also use the silencing response to maintain control of the narrative over individuals and groups, shutting down life-affirming self-assertion. This macro application of the silencing response is why movements such as Black Lives Matter, the Arab spring, women's and Pride marches, and student and peasant uprisings across the world organically arise in the relative safety of numbers. We are beginning a qualitative study to explore somatic responses to group delivery of trauma-informed FV and integral sound healing in order to assess if mental health student participants indeed unlearn voicelessness in any way that is empowering for them. The current article is a conceptual argument for how FV and integral sound healing are anti-oppressive somatic interventions.

Both FV and Integral Sound Healing invite us to channel the breath to avail ourselves of our most regulated and authentic embodiment. These therapeutic tools offer us the ability to live in the realm of observation, known in somatic and trauma research as the parasympathetic or ventral vagal state (Dana, 2018). The ventral vagal state is available only when the human nervous system is resting in a deeply regulated biobehavioral rhythm. Returning to this state requires time and effort after an emotional upset, and can be completely co-opted by chronic stress and trauma (Porges, 2022). Therefore, potential methods for increasing clinicians' skillset for self-care and client facilitation of returning to this regulated state merit formal study to develop the evidence base.

This literature review and study proposal serves as a preliminary investigation into links between the theory and practice of FV and Integral Sound Healing, as well as related research in scientific literature on somatic therapy and interventions. The intent of this literature review is to examine intersections between FV, Integral Sound Healing, and research on somatic modalities used in clinical mental health counseling. The researchers will then describe a pilot study intended to introduce clinicians-in-training to FV and Integral Sound Healing for their self-care and, eventually, as therapeutic interventions with counseling clients in clinical settings.

### Voicework

Voicework can be defined as the eclectic collection of methodologies combining ancient and modern breathing techniques to unlock the fullest potential of an electric, vibrating human being (Campbell, 2000; Linklater & Slob, 2006; Hampton, 1997). Voicework helps to tap into the power of communication, understand how to use language to inspire meaningful change, and supports individuals to use the variety and texture of their voice to express truths with honesty and integrity. Voicework offers tools for transformation and self-empowerment.

Voicework depends on effective breathing, the primary function of which is oxygenation. The respiratory system in the body draws oxygen into the bloodstream, where it is distributed by the circulatory system throughout an individual's entire anatomical structure. The voice can be conceptualized as conscious energy in motion (Dyczkowski, 2006). Phonation (i.e., voicing) occurs as a result of the central nervous system (CNS) and autonomic nervous system (ANS) engaging in a dynamic bioenergetic interplay (Lowen, 1975; Pierrakos, 2005). In this process, the CNS and ANS allow and engage access to the necessary energy, oscillation, organization, relaxation, flexibility, and freedom in the body so that breath can fuel and support intentional phonation (Farhi, 1997; Calais-Germain, 2006).

Core facilitative conditions of therapy have traditionally included intentional assessment of emotional state and co-regulation of negative affect through modulation of vocal tone, pacing, and prosody to co-regulate stress and effectively communicate safety and empathy. Recent advances in therapeutic interventions and technology are now incorporating polyvagal theory with auditory soothing and voicework to regulate overwhelmed and dysregulated states such as anxiety, and sensory processing difficulties typical of clients on the autistic spectrum (Kawai et al., 2023; Porges et al., 1995-2022). Research is also underway applying polyvagal theory with voicework to down-regulate trauma activation (CTG Labs-NCBI, 2023; Porges, 2022). Somatic interventions for stress and trauma widely incorporate intentional use of breath and voicing to access and discharge held states of overwhelm, and bring them to resolution (Lucks & Lucks, 2015; MacNaughton, 2004; Porges, 2022; Zaccaro et al., 2018). Much of this work may be considered consonant with ancient traditions that have incorporated intentional entrainment to a coherent state through individual and collective voicework (Cabral-Calderin & Henry, 2022; D'Angelo, 2000).

### **Fitzmaurice Voicework**

Fitzmaurice Voicework was established in the late 70s by Catherine Fitzmaurice, and is a holistic approach to vocal training used with performers (2018). FV is now a globally recognized vocal technique used with students at the undergraduate and postgraduate levels in some of the most prestigious academic and research institutions in the world. FV is also used in corporate and clinical settings (Watson et al., 2019). The results from a 2019 pilot study using fMRI to measure participants' brains in response to FV suggest that FV could positively impact executive cognitive control networks in the brain, and potentially offer therapeutic effects to the central nervous system (Watson et. al, 2019). FV adapts the voicework of bioenergetic tremors, yoga positions, and a focus on a fully relaxed torso to invite and allow maximum spontaneous breathing movement (Fitzmaurice, 2003). Additionally, FV incorporates supported and witnessed tantruming with vocal expression to facilitate a cognitive assimilation or coping process necessary to alchemize an overwhelm of cortisol with healthy efficacy (Bohart, 1980). FV skills (i.e., mindful body scanning, breathwork, tantruming, bataka work, vocalizing emotions) are self-regulation tools meant to encourage the nervous system to bravely and healthfully process highly-charged emotional and somatic experiences.

FV can be divided into four main parts: presence, destructuring, restructuring, and play.

- Presence is meant to help build a personal awareness of the internal landscape using proprioception.
- Destructuring uses a sequence of modified hatha yoga positions meant to develop freedom in the voice and body. Tremors may occur during the destructuring sequence as the body's natural healing response for digesting and processing cortisol. More specifically, FV invites the use of sound on every outbreath, no matter how the body is breathing (without changing the placement or rhythm of that breathing) in order to retrain the CNS to understand that it can allow voice with ease, and that breath flow and voice can be released through the vocal tract without excess stress or restriction.
- Restructuring is meant to develop focus for clarity of thought and emotion in oral communication by engaging the primary muscles of breathing to efficiently support intentional sound-making.
- Finally, *play* invites a holistic embodiment of the vocal variety available. This part of FV engages the dynamic communication between the freedom of spontaneous inspiration and the focused choreography of primary breathing muscles to express intention and explore possibilities.

### **Integral Sound Healing**

Human beings are unique among the animal kingdom in that our evolutionary relationship with sound has allowed us to manipulate our production of it for a wide variety of social engagement and self-regulatory purposes (Porges 1995, 2003, 2011, 2022). We use sound to express our emotions and needs, which makes it a potent healing tool centered in therapeutic intervention since Freud founded the "talking cure" of psychoanalysis.

Integral Sound Healing can aid us in shifting between brain waves (or levels of consciousness) in order to allow healing to occur at a neurological and neurochemical level (Chanda & Levitin, 2013; Porges, 2003). Neuroscience research has shown that there are multiple levels of consciousness that can be measured with a variety of technologies affording various levels of precision, and therapeutic sound is a process that can shift brain waves into a more optimal state of desired consciousness beyond stressed states or a typical resting baseline (D'Angelo, 2000; Gao et al., 2020; Kučikienė & Praninskienė, 2018; Madsen et al., 2019; Tai & Lin, 2018).

Sound healing is an ancient modality that is said to improve wellbeing and balance the body's entire system through life force energy and neurochemical balance (Chanda & Levitin, 2013; Goldsby and Goldsby, 2020). Integral Sound Healing is a form of complementary and alternative natural medicine that utilizes sound and vibration to deeply penetrate and address physical, emotional, mental, and ethereal/spiritual challenges. Sound healing can treat chronic stress in a non-invasive manner by reducing inflammatory stress states and invoking natural recuperation (Chanda & Levitin, 2013; Goldsby & Goldsby, 2020; Nagdhi et al., 2015). Integral Sound Healing can be considered a combination of evidence-based approaches (sound, meditation, and music therapy) that use sound as a tool to help improve brain function, develop physical resilience, process cortisol, regulate emotions, improve attention skills, enhance learning abilities, and rewire neural circuits (Merzenich, 2010). This form of holistic healing operates from a psycho-acoustics lens that posits that the body is one complete and dynamic unit, and that each human being has a phenomenological relationship to the way they experience sound and sound-making (Jung et al, 2012; Will, 2022).

# Fitzmaurice Voicework & Integral Sound Healing as somatic practices

Today, somatic practices and bottom-up processing modalities are increasingly recognized across mental health treatment fields as moving toward the gold standard for trauma resolution (Brom et al., 2017; Kuhfuß, et al., 2021; Payne et al., 2015; TICTI, 2023). As a tool for performance, Fitzmaurice Voicework taps into this wisdom; however, because FV does not originate from the field of mental health, it does not automatically integrate a trauma-informed lens. For instance, FV trainers who are not also trained as clinicians may push for emotional catharsis of vulnerable FV students in a group setting without awareness of how that can potentially retraumatize their students, and without providing tools for trauma resolution and integration.

The purpose of the current proposed pilot study is therefore threefold. First, it will elaborate on the philosophical and practical consonance between somatic bottom-up processing and Fitzmaurice Voicework so that mental health practitioners-in-training can intentionally use these practices for their own self-care, as well as trauma-informed intervention with their voice and body. Second, this study will introduce a trauma-informed lens to FV with the intention of benefitting future FV students and trainers. Third, it will add to the somatics and trauma literature about intentional use of breath, movement, and sound to facilitate self-care and emotional regulation in therapeutic sessions for practitioner and client.

## Trauma-informed approaches

Trauma-informed psychotherapy is a multifaceted process that requires planning and preparation on the clinician's part, and the willingness to be flexible and responsive to unexpected situations. This can sometimes result in a stressful environment for both clinicians and clients. Music and sound can have a profound multifaceted impact on the therapeutic process. Research has provided evidence of the ways in which music and sound facilitate healing for people suffering from dementia, relieve pain for people suffering from AIDS, and reduce the side effects of chemo and radiology treatment for cancer patients (Will, 2022; Harvard Health, 2015). Mental health research has begun to recognize the ancient wisdom and traditions of yoga and mindfulness as essential self-care practice for practitioners and clients in coping with trauma and stress (Boyd et al., 2018; Caplan et al., 2013; Cole et al., 2015; English et al., 2022; Gulden & Jennings, 2016; Kelly & Garland, 2015; Park & Slattery, 2021). The current proposed study is rooted in that foundation, while making more explicit how breath and sound may be incorporated for healing with yoga and mindfulness techniques.

Many FV techniques can be practiced with little time and space, making them ideal options for clinicians-in-training and clinical supervisors to incorporate at busy practicum and internship sites. Teaching voicework techniques to clinicians-in-training may help them to engage in better self-care, and find ways to relieve stress during their internship and practicum placements. In addition, these practices can be used within therapy to help clients prepare for, participate in, and/or exit therapeutic sessions following Judith Herman's triphasic model for trauma resolution (1992; Webber et al., n.d.).

Therapists can incorporate trauma-informed voicework techniques to help clients practice relaxing and attuning their focus during stressful times. Once introduced to these techniques, clients may utilize them on their own. FV has been shown to be helpful in reducing stress and increasing focus (Watson et. al, 2018). FV implements modified hatha yoga positions and mindfulness into its techniques, with the added value of increased awareness of emotional states tied to breath and sound (Watson and Sadhana, 2014). This intersectionality has been known traditionally, but not necessarily used intentionally in the mental health professions. Therefore, this pilot study will systematically seek feedback on benefits and needed changes to the proposed curriculum for introducing FV to clinicians-in-training.

## Autoethnographic Case Study

The first author is a certified trainer of FV and an Integral Sound Healing practitioner. As an Afro-Latina raised in Puerto Rico and across various states in the U.S., she has witnessed and experienced firsthand the silencing response of pigmentocracy discourse in school, work, and social situations (i.e., existing in the isolation of being the only student of color in higher academic settings, receiving discriminatory treatment due to her non-Caucasian physical appearance, and being demonized for speaking Spanish in English-speaking settings).

In self-empowerment and life-affirming response to these diminishing control behaviors, she has trained at the highest level in reclaiming her voice and using it as a liberating advocacy tool on behalf of those who are still unlearning voicelessness. *Voicelessness* results from a conscious choice to exercise power or refuse to exercise power, and can also be a silence enforced on one by others in the absence of choice (Kritzinger, 2012). The first author's unlearning of voicelessness shows itself in (1) pausing group process when white dominance is monopolizing time; (2) naming group dynamics and modeling how to attune to the activation in the room; (3) speaking directly to power with embodied courage and steadiness.

The implementation of sound healing and FV techniques as a somatic self-care practice nurture an ability to advocate for positive change and become an active part of the process of transforming systematic inadequacies into something radically new. In systems that perpetuate cultural oppression and structural inequality, self-advocacy through voicework and sound healing offer a necessary form of self-care.

As embodied mental health professionals dedicated to advancement, equity, diversity, and inclusivity in the mental health field, we have a duty to be leaders in self-advocacy. If we do not raise our voices against unjust treatment, we will continue to be silenced and oppressed by those same institutional structures that claim to support us. Integral Sound Healing and FV introduce, build, and create ways of operating that hold space for integrity, transparency, and the wellbeing of all involved as essential in decision-making processes.

### Conclusion

From a trauma-informed lens, the mental health field would benefit greatly from opening its doors to voicework as a therapeutic somatic intervention. Somatic psychology recognizes the importance of a mind-body connection to processing trauma and stress. Somatic interventions offer skills to learn how to gently reprogram the mind and body to respond and engage with others from a brave and regulated state, rather than a traumatized, reactive state. Furthermore, normalizing the discussion and engagement of ongoing self-care with clinicians-in-training can reduce stigma and encourage proactive skills development to avoid vicarious traumatization, burnout, and compassion fatigue. Finally, for clinicians and clients who find themselves pressed to the margins in a white body supremacist, patriarchal structure, methods that facilitate the unlearning of voicelessness in response to power are necessary to bring the right relationship and balance to lived experience, while leading the way forward with communal awareness and wellness.



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Task Force at PAU. As an Afro-Latina, she is bilingual (Spanish), and specializes in coaching and performing in both languages. She has a passion for empowering ethnically diverse voices, and a wealth of experience teaching students of all ages and skill levels in group and private settings. As a collegiate level Voice, Speech & Drama educa-tor, her pedagogy includes: Fitzmaurice Voicework®, Knight-Thompson Speechwork, Accent Acquisition, Contact Improvisation, classical vocal performance, musical theatre singing, and Integral Sound Healing.



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ate from Santa Barbara Graduate Institute in Clinical Psychology with a specialization in Somatic Psychology included experiential coursework in pre-and perinatal psychology. Karen has spent her clinical career in family therapy through community mental health for the marginalized and underserved including fostered youth, adjudicated youth, and the Latinx migrant community, as well as international trauma training outreach in Haiti.

#### REFERENCES

**Allen, Will. (2022, July 21).** The not-so-secret benefits of sound healing: When music is medicine. MyYogaTeacher. https://www.myyogateacher.com/articles/benefits-of-sound-healing

Bohart, A. C. (1980). Toward a cognitive theory of catharsis. *Psychotherapy: Theory*, *Research & Practice*, 17(2), 192–201. https://doi.org/10.1037/h0085911

Boyd, J. E., Lanius, R. A., & McKinnon, M. C. (2018). Mindfulness-based treatments for posttraumatic stress disorder: A review of the treatment literature and neurobiological evidence. *Journal of Psychiatry & Neuroscience*, 43(1), 7–25. https://doi.org/10.1503/jpn.170021

Brom, D., Stokar, Y., Lawi, C., Nuriel-Porat, V., Ziv, Y., Lerner, K., & Ross, G. (2017). Somatic Experiencing for posttraumatic stress disorder: A randomized controlled outcome study. *Journal of Traumatic Stress*, 30(3), 304–312. https://doi.org/10.1002/jts.22189

Cabral-Calderin, Y., & Henry, M. J. (2022). Reliability of neural entrainment in the human auditory system. *Journal of Neuroscience*, 42(5), 894–908. DOI: 10.1523/JNEUROSCI.0514–21.2021

Calais-Germain, B. (2006). Anatomy of breathing. Seattle, WA: Eastland Press.

**Campbell, D. G. (2000).** The roar of silence: Healing powers of breath, tone & music. Wheaton, IL: Quest Books/ Theosophical Publishing House.

**Caplan, M., Portillo, A., & Seely, L. (2013).** Yoga psychotherapy: The integration of Western psychological theory and ancient yogic wisdom. *The Journal of Transpersonal Psychology*, 45(2), pp. 139–158. https://myusf.usfca.edu/sites/default/files/users/aszaki/YogaPsychotherapy.pdf

Chanda, M. L., & Levitin, D. J. (2013). The neurochemistry of music. Trends in Cognitive Sciences, 17(4), 179–193. https://doi.org/10.1016/j.tics.2013.02.007

Chun, J., Kim, Y. J., & Kang, K-A. (2023). Initial screening of compassion fatigue in a hospice palliative care team: validation of the silencing response scale. *Progress in Palliative Care*, 31(1), 37–44, DOI: 10.1080/09699260.2022.2122316

**Cole, M. A., Muir, J. J., Gans, J. J., Shin, L. M., D'Esposito, M., Harel, B. T., & Schembri, A. (2015).** Simultaneous treatment of neurocognitive and psychiatric symptoms in veterans with post-traumatic stress disorder and history of mild traumatic brain injury: A pilot study of mindfulness-based stress reduction. *Military Medicine*, 180(9), 956–963. https://doi.org/10.7205/MILMED-D-14-00581

**CTG Labs-NCBI. (2023).** The effects of the Safe and Sound Protocol on PTSD symptoms and anxiety. https://beta. clinicaltrials.gov/study/NCT04999852

Dana, D. (2018). The polyvagal theory in therapy: Engaging the rhythm of regulation. New York, NY: W.W. Norton.

**D'Angelo, J. (2000).** The healing power of the human voice: Mantras, chants, seed sounds for health and harmony. Randolph, VT: Healing Arts Press.

**Dyczkowski**, **M. S. G. (2006).** The doctrine of vibration: An analysis of the doctrines and practices of Kashmir Shaivism. New Delhi, India: Motilal Banarsidass.

English, A., McKibben, E., Sivaramakrishnan, D., Hart, N., Richards, J., & Kelly, P. (2022). A rapid review exploring the role of yoga in healing psychological trauma. *International Journal of Environmental Research and Public Health*, 19(23), 16180. https://doi.org/10.3390/ijerph192316180

Farhi, D., & Young, B. (1997). The breathing book: Good health and vitality through essential breath work. New York, NY: Simon & Schuster.

Fitzmaurice C. (2003). Structured breathing. Voice and Speech Trainer's Association Spring Newsletter, 17(1).

Gao, D., Long, S., Yang, H., Cheng, Y., Guo, S., Yu, Y., Liu, T., Dong, L., Lu, J., & Yao, D. (2020). SWS brain-wave music may improve the quality of sleep: An EEG study. *Frontiers in Neuroscience*, 14. https://doi.org/10.3389/fnins.2020.00067

**Goldsby, T. L., & Goldsby, M. E. (2020).** Eastern integrative medicine and ancient sound healing treatments for stress: Recent research advances. *Integrative Medicine*, 19(6), 24–30.

**Gulden, A. W., & Jennings, L. (2016).** How yoga helps heal interpersonal trauma: Perspectives and themes from 11 interpersonal trauma survivors. *International Journal of Yoga Therapy*, 26. https://www.psychologytoday.com/us/blog/head-games/202206/7-ways-yoga-helps-heal-trauma

Hampton, M. (Ed.). (1997). Breathing is meaning. The Vocal Vision. New York, NY: Applause Books.

Hardy, K. V. (n.d.). Tasks of the privileged and the subjugated. https://artsmidwest.org/sites/default/files/ KenHardyTasks\_Handout.pdf

Harvard Health. (November 5, 2015). Healing through music. https://www.health.harvard.edu/blog/healing-through-music-201511058556

Herman, J. L. (1992). Trauma and recovery. New York, NY: Basic Books.

Johnson, D. (1995). Bone, breath, and gesture: practices of embodiment. Volume 1. CIIS Faculty Publications. https://digitalcommons.ciis.edu/facultypublications/9

Jung, K. H., Won, J. H., Drennan, W. R., Jameyson, E., Miyasaki, G., Norton, S. J., & Rubinstein, J. T. (2012). Psychoacoustic performance and music and speech perception in prelingually deafened children with cochlear implants. *Audiology and Neurotology*, 17(3), 189–197. https://doi.org/10.1159/000336407

Kawai, H., Kishimoto, M., Okahisa, Y., Sakamoto, S., Terada, S., & Takaki, M. (2023). Initial outcomes of the Safe and Sound protocol on patients with adult autism spectrum disorder: Exploratory pilot study. *International Journal of Environmental Research and Public Health*, 20(6), 4862. https://doi.org/10.3390/ijerph20064862

Kelly, A., & Garland, E. L. (2016). Trauma-informed mindfulness-based stress reduction for female survivors of interpersonal violence: Results from a stage I RCT. *Journal of Clinical Psychology*, 72(4), 311–328. https://doi. org/10.1002/jclp.22273

**Kritzinger, J. N. J. (2012).** Overcoming theological voicelessness in the new millennium. Missionalia, SA: Southern *African Journal of Mission Studies*, 40(3), 233–250.

Kučikienė, D., & Praninskienė, R. (2018). The impact of music on the bioelectrical oscillations of the brain. *Acta Medica Lituanica*, 25(2). 101–106. https://doi.org/10.6001/actamedica.v25i2.3763

Kuhfuß, M., Maldei, T., Hetmanek, A., & Baumann, N. (2021). Somatic experiencing – effectiveness and key factors of a body-oriented trauma therapy: A scoping literature review. *European Journal of Psychotraumatology*, 12(1), 1929023. https://doi.org/10.1080/20008198.2021.1929023

**Linklater, K. (1976).** Freeing the natural voice: imagery and art in the practice of voice and language (Revised and expanded [edition]). New York, NY: Drama Book Publishers.

Lowen, A. (1975). Bioenergetics. New York, NY: Coward, McCann & Geoghegan.

Lucks, C., & Lucks, L. E. (2015). Improvement of a functional movement disorder in a patient receiving Network Spinal Analysis and Somato Respiratory Integration care: A case report. *Annals of Vertebral Subluxation Research*, pp. 26–33. https://www.integratewellnesscenter.com/wp-content/uploads/2019/01/movment.pdf

Lucks, C., & Lucks, L. E. (2016). Resolution of panic disorder and improved quality of life in a patient receiving Network Spinal Analysis and Somato Respiratory Integration care: A case report. *Annals of Vertebral Subluxation Research*, pp. 111–117.

MacNaughton, I. (Ed.). (2004). Body, breath and consciousness. Berkeley, CA: North Atlantic Books.

Madsen, J., Margulis, E. H., Simchy-Gross, R., & Parra, L. C. (2019). Music synchronizes brainwaves across listeners with strong effects of repetition, familiarity and training. *Scientific Reports*, 9, 3576. https://doi.org/10.1038/s41598-019-40254-w

**Merzenich, M. (2010, April 22).** Top 12 brain-based reasons why music as therapy works [web log]. Retrieved May, 2023 from https://www.brainhq.com/blog/top-12-brain-based-reasons-why-music-as-therapy-works/

Naghdi, L., Ahonen, H., Macario, P., & Bartel, L. (2015). The effect of low-frequency sound stimulation on patients with fibromyalgia: A clinical study. Pain Research & Management, 20(1), e21-e27. https://doi.org/10.1155/2015/375174

Park, C. L., & Slattery, J. M. (2021). Yoga as an integrative therapy for mental health concerns: An overview of current research evidence. *Psychiatry International*, 2(4), 386–401. https://doi.org/10.3390/psychiatryint2040030

Payne, P., Levine, P. A., & Crane-Godreau, A. M. (2015). Somatic experiencing: Using interoception and proprioception as core elements of trauma therapy. *Frontiers in Psychology*, 6. https://doi.org/10.3389/ fpsyg.2015.00093

Pierrakos, J. C. (2005). Core energetics: Developing the capacity to love and heal. Mendocino, CA: Core Evolution Publishing.

**Porges, S. W. (1995).** Orienting in a defensive world: Mammalian modifications of our evolutionary heritage. Polyvagal theory. *Psychophysiology*, 32, 301–318. DOI: 10.1111/j.1469–8986.1995.tb01213.x

**Porges, S. W. (2003).** The Polyvagal theory: Phylogenetic contributions to social behavior. *Physiology & Behavior*, 79, 503–513. DOI: 10.1016/S0031–9384(03)00156–2

**Porges, S. W. (2011).** The Polyvagal Theory: Neurophysiological foundations of emotions, attachment, communication, and self-regulation. New York, NY: W. W. Norton.

Porges, S. W., Macellaio, M., Stanfill, S. D., McCue, K., Lewis, G. F., Harden, E. R., Handelman, M., Denver, J., Bazhenova, O. V., & Heilman, K. J. (2013). Respiratory sinus arrhythmia and auditory processing in autism: Modifiable deficits of an integrated social engagement system? *International Journal of Psychophysiology*, 88, 261–270. DOI: 10.1016/j.ijpsycho.2012.11.009

Porges, S. W., Bazhenova, O. V., Bal, E., Carlson, N., Sorokin, Y., Heilman, K. J., Cook, E. H., & Lewis, G. F. (2014). Reducing auditory hypersensitivities in autistic spectrum disorder: Preliminary findings evaluating the Listening Project protocol. *Frontiers in Pediatrics*, 2, 80. DOI: 10.3389/fped.2014.00080

Porges, S. W. (2022). Polyvagal theory: A science of safety. Frontiers in Integrative Neuroscience, 16, 871227. https://doi.org/10.3389/fnint.2022.871227

**Routsis, F. (2023, May 3).** The safe and sound protocol listening therapy: Unyte. Unyte Integrated Listening. https:// integratedlistening.com/products/ssp-safe-sound-protocol/

**Tai, S. K., & Lin, Y. K. (2018).** The influence of different kinds of music on brainwave signals. *IEEE. International Conference on Advanced Manufacturing (ICAM)*, Yunlin, Taiwan, pp. 223–226, DOI: 10.1109/AMCON.2018.8614971

**Trauma Institute & Child Trauma Institute (TICTI). (2023).** The gold standard should work with real clients. https://www.ticti.org/gold-standard/

**Watson, L., & Nayak, S. (2014).** Fitzmaurice Voicework: Theory, practice, and related research. *Voice and Speech Review*, 8(2), 149–156, DOI: 10.1080/23268263.2014.906968

**Watson, L., Hirshorn–Johnston, R., O'Bryan, S., & Davis, T. (2019).** Fitzmaurice Voicework pilot study with fMRI. *Voice and Speech Review*, 13(2), 152–172, DOI: 10.1080/23268263.2019.1558992

Webber, J. M., Mascari, J. B., Dubi, M., & Gentry, J. E. (n.d.). Moving forward: Issues in trauma response and treatment. *VISTAS online*, 4. American Counseling Association. https://www.counseling.org/resources/library/vistas/vistas06/vistas06.04.pdf

Zaccaro, A., Piarulli, A., Laurino, M., Garbella, E., Menicucci, D., Neri, B., & Gemignani, A. (2018). How breathcontrol can change your life: A systematic review on psycho-physiological correlates of slow breathing. *Frontiers in Human Neuroscience*, 12(353). https://doi.org/10.3389/fnhum.2018.00353