

3-20-2025

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Recommended Citation

Rhoads, M., Murphy, M., Behrens, M. L., Salvo, R., Anderson, S., Gowen, C., Humbles, D., Quarry, V., Rosene, D., Tribelhorn, W., Urcheck, J., & Waggy, D. (2025). Grounded in Touch: The Science Behind Anxiety Relief and Human Connection. *Journal of Transformative Touch*, 4(1). <https://doi.org/10.58188/2767-7176.1047>

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Grounded in Touch: The Science Behind Anxiety Relief and Human Connection

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Grounded in Touch: The Science Behind Anxiety Relief and Human Connection

Abstract

Background: Anxiety disorders are among the most pervasive mental health challenges worldwide, affecting individuals across all demographics and socioeconomic backgrounds. As a leading contributor to disability and diminished quality of life, anxiety continues to rise in prevalence, exacerbated by global crises and societal stressors. This study explored how Zero Balancing (ZB) supports individuals with anxiety. Researchers hypothesized that ZB would lower the perceived severity of general anxiety and reduce perceived anxiety symptoms.

Methods: A concurrent mixed-methods phenomenological research design was utilized to honor the holistic nature of bodywork and explore participants' lived experiences. This national study involved 320 ZB sessions facilitated by 12 certified ZB practitioners trained in research methods. Each participant received one ZB session weekly for four weeks, ensuring consistency by working exclusively with the same practitioner. Anxiety levels and symptoms were gathered via pre/post-session Hamilton Anxiety Rating Scale (HAM-A) and General Anxiety Disorder-7 item Scale (GAD-7). Face-to-face, semi-guided, video-recorded interviews were conducted at the end of the series. The quantitative aspect included pre/post assessments reported with descriptive statistics and a paired samples t-test (one-tail). Qualitative data was assessed for themes.

Results: The t-tests (one-tailed) for generalized anxiety severity ($M=5.8$, $SD=0.462$, $N=80$) was significant ($p<.0001$) with a 95% CI [4.88, 6.72]. Perceived anxiety symptoms ($M=10.46$, $SD=0.870$, $N=80$) were also significant ($p<.0001$) with a 95% CI [8.73, 12.19]. Participants reported declines in depressed mood (56%), fears (56%), autonomic issues (54%), and tension (53%). Regulation, awareness, and embodiment emerged as key interrelated themes under the overarching theme of connection, reflecting the interplay between somatic experiences, anxiety reduction, and personal transformation.

Conclusions: Zero Balancing effectively reduced anxiety severity and symptoms, highlighting the critical role of somatic awareness in anxiety management.

Key words: Anxiety, Zero Balancing, skilled conscious touch, touch medicine, holistic health, holistic treatment, non-pharmaceutical approaches, neuroregulation, vagus nerve, embodiment, safety, Generalized Anxiety Disorder-7 Item Scale, Hamilton Anxiety Rating Scale, bodymind therapy, interoception, somatic therapy

Overview

Anxiety disorders are among the most pervasive mental health challenges worldwide, affecting individuals across all demographics and socioeconomic backgrounds (National Alliance for Mental Illness [NAMI], 2017). As a leading contributor to disability and diminished quality of life, anxiety continues to rise in prevalence, exacerbated by global crises and societal stressors. In the United States, anxiety is the most prevalent mental health concern, affecting over 40 million adults (19.1%) with an anxiety disorder (National Institute of Mental Health [NIMH], 2025). Approximately one-third of U.S. adolescents and adults will experience an anxiety disorder at some point in their lives (NIMH, 2025). The global prevalence of anxiety is on the rise, with no signs of decline. Before the pandemic, the World Health Organization (2023) reported that 4% of the global population, or over 300 million people, experienced anxiety. This rate has likely increased since 2019, fueled by ongoing military conflicts, famines, genocides, forced migrations, and climate-related disasters.

Anxiety disorders, such as Generalized Anxiety Disorder (GAD), social anxiety disorder, and panic disorder, are not only among the most common psychiatric conditions but are also linked to significant healthcare costs and an individual's quality of life (Bandelow & Michaelis, 2015). The economic impact is substantial, with global direct costs of anxiety disorders estimated to exceed \$6 trillion annually (Konnopka & König, 2020). Beyond the financial implications, anxiety disorders also impose a substantial human toll, as those affected often experience lower life satisfaction and challenges in relationships compared to individuals without anxiety disorders (Henning et al., 2007; Kertz & Woodruff-Borden, 2011; Wittchen, 2002 as cited in Kavelaars et al., 2023).

Anxiety significantly impacts both psychological and physiological health by triggering the body's stress response. Common symptoms include fear, panic, difficulty concentrating, fatigue, insomnia, increased heart rate, and physical discomfort (National Institute of Mental Health, n.d.). Research has also identified autonomic nervous system (ANS) dysregulation as a key factor contributing to anxiety-related symptoms, such as heightened reactivity, disrupted cognition, and impaired social interactions (Quadt et al., 2022). Generalized Anxiety Disorder (GAD) poses distinct treatment challenges, as both psychotherapeutic and pharmacological interventions achieve full recovery in only about 50% of cases (Robinson et al., 2019). This limited effectiveness is partly attributed to traditional treatments being developed without a complete understanding of the underlying neurobiological mechanisms they target (Robinson et al., 2019). Consequently, there remains a considerable gap in improving treatment outcomes for individuals with anxiety disorders.

The growing prevalence of anxiety underscores the need for alternative therapeutic approaches alongside traditional pharmaceutical treatments and psychological counseling. Emerging research suggests that somatic manual therapies, particularly those involving skilled touch, may offer a promising solution for managing anxiety symptoms (West & Huzij, 2024). One such modality, Zero Balancing Therapy (ZB) uses skilled touch to integrate both the body and mind,

fostering structural alignment. This approach may influence autonomic nervous system regulation and support resilience in individuals with chronic anxiety.

Zero Balancing Therapy (ZB) is a neuro-regulatory therapeutic modality that blends Western and Eastern healing principles. It focuses on mental and physical health by targeting biomechanical alignment and relieving tissue tension through calibrated pressure and traction techniques. ZB addresses skeletal structures and specific meridian pathways (believed to conduct vital energy in traditional Chinese medicine) to enhance energy flow, supporting self-healing and physiological repair. ZB synergistically combines dynamic energy therapies with structural therapies, thereby enhancing the efficacy of both paradigms and establishing a novel framework for healthcare practitioners (Ralston, 1998). Developed by Dr. Fritz Smith in the 1970s, ZB is practiced by a variety of healthcare professionals, including physical therapists, occupational therapists, massage therapists, acupuncturists, and medical doctors, all of whom undergo certification through their local Zero Balancing Association.

Building on our pilot study (Rhoads & Murphy, 2024) and employing a consistent research protocol across all phases, this national study expands on how skilled touch therapy, such as Zero Balancing, can help alleviate anxiety symptoms through a non-pharmaceutical, holistic, and embodied approach. Further research into the efficacy of such therapies remains essential for advancing anxiety treatment and providing alternative solutions for individuals affected by this widespread and growing disorder.

Methodology

This study explores the following:

Research Question:

How does ZB support individuals with anxiety to manage their physical, mental, and emotional health?

Hypotheses:

It is hypothesized that Zero Balancing will reduce perceived anxiety symptoms and decrease the perceived severity of generalized anxiety in individuals experiencing anxiety.

Participants

This national study utilized a convenience sample of 80 individuals experiencing varying types and levels of anxiety to participate in a four-week Zero Balancing (ZB) treatment series. Inclusion criteria required participants to be 18 years or older, no longer enrolled in high school, actively experiencing anxiety, and able to attend all four weekly ZB sessions.

Design

A concurrent mixed-methods phenomenological research design was utilized to honor the holistic nature of bodywork and explore the participants' lived experiences. This national study, conducted from August 2023 to April 2024, involved 80 participants who received 320 Zero Balancing (ZB) sessions facilitated by 12 certified ZB practitioners trained in research methods.

Each participant received one Zero Balancing session weekly for four weeks, ensuring consistency and continuity by working exclusively with the same practitioner throughout the study. At the initial visit, participants provided informed consent, demographic information and completed pre-session assessments. All sessions adhered to the standardized Zero Balancing protocol and were conducted by certified clinical researchers. No video recordings of the sessions were conducted to maintain the therapeutic integrity and preserve the natural dynamics of the interactions.

Assessment

Anxiety is a complex phenomenon that encompasses subjective experiences often measured through self-reports (Klein et al., 2018). Self-reported symptoms play a crucial role in monitoring individuals' anxiety levels and lived experiences. To effectively evaluate the impact of treatments on anxiety, it is essential to incorporate objective assessments of these subjective experiences (Rose, 2014).

In this study, anxiety levels and symptoms were assessed using the Hamilton Anxiety Rating Scale (HAM-A) and the Generalized Anxiety Disorder 7-item Scale (GAD-7), which were administered before and after each series. Furthermore, face-to-face, semi-structured, video-recorded interviews were conducted immediately after participants completed their final Zero Balancing session, providing deeper insights into their experiences.

Analysis

The quantitative component of this study involved pre/post assessments, which were analyzed using descriptive statistics and a one-tailed paired samples t-test. The qualitative data was transcribed verbatim and analyzed for recurring themes. The qualitative analysis was conducted using collaborative thematic analysis, with four researchers independently reviewing the data to identify and refine themes through discussion, ensuring validation and consistency across multiple perspectives.

Institutional Review Board Approval

This study was approved by the Institutional Review Board at Eastern Illinois University.

Findings

Sample

Participants ranged in age from 18 to 80 years, were predominantly White (n=70) and female (n=63), and the majority held at least a bachelor's degree (n=63), with most reporting over six years of anxiety (n=63) and nearly half having received a formal diagnosis (n=48).

Quantitative

A paired sample t-test (one-tail) was conducted on both the HAM-A and GAD-7 to determine if Zero Balancing is effective in reducing anxiety symptoms and overall general anxiety.

GAD-7- Generalized Anxiety

The mean rating around the severity of generalized anxiety ($M= 5.8$, $SD= .462$, $N=80$) was significantly greater than zero, $t(79)= 12.56$, one tail $p< .0001$, providing evidence that Zero Balancing reduced anxiety. The 95% confidence interval (C.I.) about generalized anxiety is (4.88, 6.72).

HAM-A - Perceived Anxiety Symptoms

The mean score surrounding the severity of perceived anxiety symptoms ($M= 10.46$, $SD= 0.870$, $N=80$) was significantly greater than zero, $t(79)= 12.02$, one tail $p<.0001$ providing evidence that Zero Balancing is effective at lowering perceived anxiety symptoms. The 95% confidence interval (C.I.) about perceived anxiety symptoms is (8.73, 12.19).

*HAM-A Participants' Perceived Symptom Decline***Table 1****Percentage Reduction in Symptom Categories**

Symptom Category	% Reduction
Anxious	41%
Tension	53%
Fears	56%
Insomnia	48%
Intellectual/Cognitive	53%
Depressed Mood	56%
Muscular/Somatic	47%
Sensory/Somatic	53%
Cardio Symptoms	68%
Respiratory Symptoms	62%
Gastrointestinal Symptoms	58%
Genitourinary Symptoms	71%
Autonomic	54%

Note: “% Reduction” refers to the reported drop in symptoms.

Qualitative

Four key themes emerged in this study’s findings, which highlight the participants’ experience as they navigate their anxiety through bodily awareness. These themes, regulation, awareness, and embodiment, are interconnected under the overarching theme of connection, reflecting the dynamic interplay between somatic (bodily) experiences, anxiety reduction, and personal transformation.

Themes

Connection is the feeling of being safe, present, and in tune with ourselves and others (Dana, 2021). It arises when we experience deep listening and a sense of safety, allowing us to share openly, build trust, and form meaningful relationships. Because connection is rooted in the nervous system, it helps us regulate our emotions, support one another, and engage more

authentically. At its core, connection is a fundamental human need that promotes healing, balance, and a deep sense of belonging (Dana, 2021). Participants in this study described a profound sense of connection, not only with themselves but also with the practitioner and the larger world. One participant reflected, “Connection to the core... it also feels still, but so awake, or present, or heightened... like I am tuned into a frequency of how things move or feel and the sensations in my body,” illustrating the deep somatic awareness fostered by the practice.

For many, the experience of connection through Zero Balancing transcended physical relaxation, creating a felt sense of unity with the body, mind, and universe. One participant described, “I feel a sense of mind-body connection, connection to my whole body,” while another shared, “It feels like a sense of grounding with the universe as a whole.” This sense of deep connection often manifested as a physical experience, with one participant explaining, “Like a wave of muscle relaxation or tingling... I can feel this wave go over my whole body... like that wave is energy moving through me.” Through this embodied connection, participants reported not only a greater sense of presence but also a shift toward gratitude, peace, and self-acceptance.

The impact of connection, as reported by the participants, extended beyond the sessions, influencing participants’ broader sense of belonging and emotional well-being. As one individual reflected, “At the end of the session today, the things that kept coming up were like the pure essence of life... gratitude, peace, trust, love, forgiveness, surrender, letting go... it’s like the essence of me.” For some, this was a new and profound experience, as another participant shared, “I’ve never had peace in that equation... adding the peace has been so special for me because that has always been the missing piece.” Participants not only cultivated connection with themselves but also discovered a deeper, more integrated sense of wholeness or what one described as “really coming home.” These experiences highlight how somatic practices can facilitate deep healing by fostering connection, both internally and externally, as a fundamental part of the human experience.

Regulating the autonomic nervous system (ANS) is the process of moving from a state of stress or shutdown often felt as anxiety, overthinking, excessive worry, or numbness toward a balanced state of calm and connection (Porges, 2017). When the autonomic nervous system is regulated, it helps us connect our physical sensations with our emotions and social experiences. This process makes recognizing and recalling positive experiences easier, building resilience, and creating a greater sense of safety and well-being (Porges, 2017). Regulating the autonomic nervous system plays a crucial role in managing anxiety and stress. The ANS governs automatic functions such as heart rate, breathing, and digestion, and when it becomes dysregulated, individuals often experience symptoms like anxiety, overthinking, excessive worry, or emotional numbness (American Psychological Association [APA], 2024). Through practices such as Zero Balancing, individuals can learn to restore balance to the ANS, transitioning from states of stress or shutdown to a calm and centered state.

McCormick (2021), in his exploration of conscious touch and transformation, discusses the principles of ZB as helping people become aware of and tolerate their feelings, opening the door to positive change. Research participants report that developing a deeper relationship with their bodies enables them to sustain this connection beyond the session. One participant shared, "Just being in dialogue with noticing my body has meant that the dialogue continues when I am not in a session," expressing how ongoing awareness can shape daily life. This process of tuning into the body, or as another participant described it, "like chatting with my body," became a valuable tool for managing stress and emotions outside of the therapeutic setting.

As the autonomic nervous system regulates, individuals can connect more fully with their bodily sensations, emotions, and social experiences. One participant explained how this process has helped them feel "more in tune" with their body and emotions, making it easier to respond to stressors. Another noted, "What is my body asking me right now?" showing how this practice enhances self-awareness and responsiveness. Over time, this regulation helps reinforce a sense of safety and well-being, supporting the body's ability to respond to stress in a more balanced and adaptive way. As one participant shared, Zero Balancing has transformed their baseline, making them "calmer, more balanced, physically, emotionally, mentally." By tuning into the body, participants felt more restored, with one describing their experience as "not running on reserves" and feeling "better charged." This deeper connection with the body and breath allowed the calm, once difficult to access, to become "more accessible" in moments of stress. Ultimately, Zero Balancing provided a pathway for emotional resilience, helping individuals reconnect with their bodies and emotions in a safe and nurturing environment, fostering greater balance and well-being.

Awareness is the ability to pay flexible and focused attention to both the world around us and our inner experiences, such as sensations, thoughts, and emotions (Dahl et al., 2020). It means being fully present and conscious of our actions, surroundings, and internal state. When awareness is reduced, individuals may become distracted or overly absorbed in a limited range of thoughts, feelings, or sensations (Dahl et al., 2020). Research participants in this study highlighted how Zero Balancing enhanced their ability to be aware of both their bodies and their stress responses. One participant noted, "I increase my capacity to handle stress and identify what strategies are going to be most successful in this particular moment and partially because I think I'm more aware of where that stress is living and where it's kind of hitting." This increased awareness allowed individuals to recognize the precise locations of tension in their bodies and helps them respond more effectively to stressors.

Participants also described how this heightened awareness enables them to process stress in a more grounded and intentional way. One participant shared, "I'm able to sit with a stressful situation, process it in my mind, feel what I have to feel, and then respond to it in a logical way, instead of getting more overwhelmed and letting it have a domino effect." By becoming more attuned to their inner experiences, individuals are able to recognize when they need to pause and rest or practice self-care, as one participant expressed, "I know when I need to take a break from everything and just take care of myself." This deeper self-awareness allows participants to

manage their stress more effectively, reframing it in a more constructive manner. As another participant explained, “When you realize what the stress is, being able to see how it is affecting me, being able to redirect that in a more positive way or neutral way,” it becomes easier to process and let go of the tension associated with stress, fostering greater emotional balance and resilience. Zero Balancing’s emphasis on body awareness offers a powerful tool for developing this kind of conscious and flexible attention, enhancing participants’ ability to navigate life’s challenges with greater clarity and composure.

Embodiment is the awakened intelligence of the body (Caldwell, 2018). It facilitates the internal pathways of bringing unconscious information into our conscious awareness for processing and integration. Embodiment is to be consciously in touch with one’s body’s sensations and energy, thoughts, emotions, and actions (Apochyan, 2003). In essence, embodiment is about aligning our inner truths with our lived experience, fostering deep insight and a connected sense of self. Individuals become more embodied through this practice by fostering a deeper connection between their physical and emotional experiences. Through skilled touch and structural alignment, a sense of internal coherence emerges, allowing for greater ease and awareness.

Participants described how these sessions supported them in returning to a centered state even in moments of emotional turmoil. One participant noted, “It helps me to get back to center, on my own... it keeps me in a space where I am able to return to my more calm self more easily,” illustrating the capacity to self-regulate and find balance amidst stress. Another participant shared, “Being able to recognize my own body and the feelings that I am feeling are helpful in some of that stress,” reinforcing how embodiment enhances self-awareness and emotional regulation.

Beyond emotional regulation, embodiment through this work influences relationships and emotional processing. One individual reflected, “I think my relationship with my partner improved because I am calmer, and less triggered and more joyful,” highlighting how becoming more embodied fosters emotional stability and deeper interpersonal connections. Additionally, participants found that this process helped them release trapped emotions and shift their relationship with their feelings. As one participant shared, “I find myself saying, ‘It’s OK to let go,’ and it’s helped to relate to my emotions in a whole different way because I see how it physically impacts me.”

These sessions enhanced therapeutic work and personal growth by integrating bodily sensations with emotional and cognitive processing. One participant noted, “It’s easy to say that the body keeps the score, but I never thought about how it might be showing up in my body... it’s helped me to do some of the work I do in therapy with more clarity and not as much overwhelm.” Through this process, individuals develop a more integrated relationship with their emotions and bodies, feeling less dysregulated and more capable of sustaining their emotional well-being. Many emphasized the gentle and supportive nature of this work, with one stating, “Through this integration, the experience offers not only a way to recognize and process emotions but also a means of embodying a more comprehensive, connected, and joyful sense of self.”

Discussion

Anxiety is not just a mental state; it is a full-body experience shaped by the continuous feedback loop between the body and brain (Paulus & Stein, 2010). When we encounter a perceived threat, our nervous system reacts automatically, often before we are consciously aware of it. Signals from the gut and muscles travel to primitive areas of the brain that assess danger, triggering physical responses such as muscle tension, rapid heartbeat, or digestive discomfort. This process reinforces a cycle where anxious thoughts and bodily sensations amplify each other, keeping the nervous system in a heightened state of vigilance (Paulus & Stein, 2010).

Somatic therapy focuses on breaking the cycle of anxiety by working directly with the body to regulate the nervous system. Anxiety can be understood as a feedback loop with negative consequences, where physical sensations of distress trigger anxious thoughts, which then reinforce further physical discomfort (Tobias & Alto, 2021). Zero Balancing addresses this feedback loop by using skilled touch to create new bodily experiences that shift the nervous system out of states of activation. Research participants shared how this process has led to a positive feedback loop that energizes them rather than relying on negative coping habits. One participant described it as "a little bit more positive feedback loop of things that give me energy," highlighting how Zero Balancing helped shift their response to stress.

Zero Balancing helps release tension, reorganize structural patterns, and send new signals of ease and balance to the brain through gentle yet intentional contact with the bones and soft tissue. As participants engage in this process, they find that their relationship with stress and anxiety transforms. One participant noted that stress used to be primarily mental "or can be exacerbated by mental processes, like rumination", but since engaging with their body, they find themselves "doing that less when I am keying into what is happening in my body." This shift in focus allowed them to interrupt the habitual stress response, leading to a deeper sense of embodiment.

One of the key challenges of anxiety is that it pulls individuals out of the present moment, making it difficult to feel grounded and engaged in daily life. When the nervous system remains in a prolonged state of stress, energy is diverted toward maintaining defense mechanisms rather than connection, creativity, or well-being. Zero Balancing helped restore the body's ability to regulate itself through the use of nuanced palpation skills to allow both physical and energetic imbalances to resolve gently. As one participant shared, "It's brought forth a better version of me that was kind of buried underneath all this illness," illustrating how Zero Balancing allows individuals to reconnect with their grounded selves, moving from a state of disconnection to one of vitality and balance. This process enabled participants to feel more present in their bodies, fostering a deeper sense of well-being and connection to the moment. Unlike cognitive approaches that primarily work with thoughts and beliefs, somatic methods use a bottom-up approach, starting with bodily sensations, then moving into emotional awareness, and finally supporting cognitive integration (Grabe & Miller-Karas, 2018). By addressing anxiety through the body first, individuals can reshape their physiological responses,

leading to a more balanced nervous system and a greater sense of control over anxious patterns.

Traditional Western medicine has long maintained a mechanistic view of the human body, often conceptualizing it as a system of discrete parts functioning independently, much like a machine. This reductionist approach has historically overlooked the interconnected nature of bodily systems and the role of fluid dynamics, fascia, and subtle energetic interactions in health and healing (Theise, 2025). In contrast, somatic therapies such as Zero Balancing emphasize an integrative understanding of the body, acknowledging its capacity for self-regulation and healing through touch and awareness. Moreover, practitioners of somatic therapy and other healing practices are known for their sense of touch and perception allowing them to sense subtle and immediate changes in the body (Theise, 2025). The range and depth of palpatory skills possessed by well-trained and experienced manual therapists are often underappreciated in many scientific studies on touch therapy. These therapists may utilize both quantitative measures (amplitude, asymmetry, range of motion) and qualitative assessments (tissue texture, heat, reaction to touch, elasticity, density, vitality, fluid flow, and energy flow) (Aubon, et al., 2014). Together, these create a personal, multimodal, and multidimensional perceptual component that reflects what is occurring in living tissue and whole-body physiology, which is difficult to quantify in most existing studies on touch therapy.

Manual therapies that affect the myofascial system have been found to stimulate brain areas responsible for processing emotions, particularly the interoceptive system (Bordoni, 2017). Interoception, often referred to as the "sixth sense," is the body's ability to perceive its internal state. Psychiatrist and neuroscientist Daniel Siegel emphasizes that "people need to *'feel felt'*", meaning the ability to accurately sense what another is feeling inside. He also describes interoception as fundamental to interpersonal neurobiology, noting that the right anterior insula in the prefrontal cortex plays a key role in interoceptive awareness and is linked to empathy (Siegel, 2012).

Recent research has explored interoception in various contexts, including its role in reducing anxiety in autistic adults (Quadt et al., 2021) and improving interoceptive accuracy to alleviate anxiety and somatic symptoms (Sugawara et al., 2024). Impaired interoception has been associated with several mental health disorders, including anxiety disorders (Khalsa et al., 2018). Body-centered therapies help strengthen the connection between the brain and body, facilitating emotional and physical well-being (Tarsha et al., 2020). These therapies work by increasing interoceptive awareness, which supports self-regulation and co-regulation (Tarsha et al., 2020). This raises the question of whether neuroaffective touch, such as ZB, enhances interoceptive awareness, allowing individuals to manage anxiety-related symptoms better.

Additionally, fascia uniquely converts mechanical force into piezoelectric energy, enhancing neural transmission and engaging the autonomic nervous system (Whatley et al., 2022). Manual somatic therapies like ZB target the body's fascial network from subcutaneous structures to the skeletal system by applying sustained pressure through compression, stretching, or twisting of the myofascial system. These techniques stimulate tissue changes across multiple body systems. This may explain the whole-body effects of touch-based interventions.

Touch Medicine is a term used to describe the therapeutic benefits of touch across multiple disciplines, including pain medicine, neurology, neonatology, psychiatry, geriatrics, clinical psychology, and psychosomatic medicine (McGlone et al., 2024; Kidd et al., 2022). Research suggests that touch-based interventions may play a crucial role in geriatric psychiatry by influencing the neuronal system responsible for processing social and affective touch (Kopf, 2021). Emerging evidence supports the idea that touch helps regulate emotional states. This aligns with the theory of constructed emotion, which suggests that emotions arise from whole brain-body interactions rather than being purely mental constructs (Barrett, 2017). In other words, emotions have a biological foundation, and touch can facilitate emotional regulation by engaging the body's physiological systems.

If an individual lacks access to safe and supportive touch during early development, they may develop what psychiatrist Thomas Verny describes as an "unconscious body-wide memory" of stress. Gabor Maté, in *The Myth of Normal: Trauma, Illness, and Health in a Toxic Culture*, expands on this idea, suggesting that unprocessed emotional memories can contribute to chronic anxiety and other psychological challenges. Research indicates that even before we develop conscious memory, typically within the first two years of life, our emotional responses to touch and safety are imprinted in our body's tissues (A. LaPierre, personal communication, 2025). These early experiences shape our ability to regulate stress and anxiety throughout life. Conversely, receiving safe, nurturing touch, such as Zero Balancing, may have a reparative effect on the nervous system. Research suggests that touch can help regulate activity in the amygdala, reducing the body's fight-or-flight response and promoting a state of emotional balance (Gothard & Fuglevand, 2022).

Touch is more than a physical sensation; it has the potential to deepen awareness and bring meaning to our experiences. The body is not merely a solid structure; it is equally a manifestation of the human energy field, which is in a continuous, mutual relationship with the surrounding energy field (Smith & Reed, 2023). Our bodies carry vibrational frequencies that shift with our physical, mental, emotional, and spiritual states. During touch therapies, individuals often describe entering a reflective state of expanded consciousness, within the experience of deep relaxation. In these quiet moments, their minds assimilate new information, leading to personal insights and a heightened awareness. Many participants report unexpected thoughts and emotions emerging, assisting them in processing past experiences and fostering new understandings. One participant explained, "It is like inner peace-making, like it is an exhale. There is a sense of unwinding, like I can literally feel space open, and with the space, my mind relaxes. So, I notice my mind calms and my body calms." Another shared how the process created a sense of openness: "There is an expansiveness or liberation." When one side is worked on, it has an ease, a flow, and a gentleness, and the other side feels stuck or blocked... it feels like there is more room inside me to hold what is there. So, there is more ease, more flow... this general sense of peacefulness." The gentle, sympathetic way touch works with the body and energy helps align them, with one participant noting, "I love that it honors the space that my physical and metaphysical body is in." These moments of reflection and realignment illustrated how touch therapy awakens a broader awareness of self and experience, fostering deeper connections between the body and mind. By facilitating these shifts, touch therapy encourages personal growth and emotional well-being (Smith & Reed, 2023). As scientific

understanding of Touch Medicine continues to grow, it may offer new approaches to managing stress, anxiety, and trauma in both clinical and everyday settings.

Limitations

While this study provides valuable insights, there are several limitations to consider. The use of a convenience sample, with 80 participants who were self-selected, may have been predisposed to holistic treatments. Additionally, the lack of demographic diversity, particularly regarding race and socioeconomic status, may affect the applicability of the findings to broader populations. While self-reported measures like the HAM-A and GAD-7 are commonly used, they are inherently subjective and may not fully capture the complex bodily effects of somatic therapies like Zero Balancing. Participants may have difficulty articulating subtle physiological changes, which could lead to an incomplete assessment of the therapy's impact. Variability in practitioner influence also poses a limitation. Although all practitioners were certified, differences in therapeutic presence, touch techniques, and interpersonal dynamics could have contributed to variations in outcomes. The study also did not include objective physiological markers, such as heart rate variability or cortisol levels, which could have provided a more comprehensive understanding of the biological mechanisms involved in anxiety reduction through Zero Balancing.

Conclusions

This large-scale national study provides evidence that integrating a skilled touch protocol, such as Zero Balancing (ZB), into anxiety treatment yields significant therapeutic benefits. Findings suggest that ZB facilitates a measurable neurophysiological response by engaging the body's inherent capacity for self-regulation and healing. Specifically, ZB appears to downregulate autonomic arousal, promoting a shift toward parasympathetic dominance, which is associated with reductions in anxiety-related symptoms. The observed reductions in both subjective and somatic measures of anxiety underscore the need for further investigation into the mechanisms by which skilled touch interventions modulate nervous system function and enhance psychological well-being.

Somatic therapies like ZB work directly with the nervous system to facilitate regulation, helping individuals transition from dysregulated states, such as chronic sympathetic arousal, to more balanced and adaptive responses. By incorporating touch and sensory awareness, these modalities provide access to the body's intrinsic wisdom, reinforcing the idea that healing is not solely a cognitive or pharmaceutical endeavor but an embodied process, particularly in addressing conditions such as anxiety, where the body's physiological state and subjective experience are deeply intertwined.

New Directions for Future Research

Somatic therapies, such as Zero Balancing (ZB), have long existed outside the realm of conventional biomedical research due to historical biases and methodological limitations. However, as scientific paradigms expand, there is increasing recognition of the need for more holistic research methodologies that align with the lived experiences and embodied nature of

these practices. Qualitative research, particularly within a constructivist framework, which acknowledges the existence of multiple realities, provides a powerful means of exploring the depth and nuance of somatic therapies, offering insights that complement traditional quantitative approaches.

A significant barrier to the acceptance of somatic therapies within mainstream scientific discourse has been their historical exclusion from peer-reviewed medical literature (Theise, 2025). Practitioners have long observed and documented phenomena such as the dynamic properties of fascia and the role of interstitial fluid in bodily communication that are only now gaining recognition in anatomical and physiological studies. Due to institutional biases, much of this knowledge has been disseminated through workshops, books, and digital media rather than traditional scientific publications. However, emerging research methodologies, including new imaging techniques and histological studies, are beginning to validate these experiential claims, reinforcing the legitimacy of somatic wisdom (Theise, 2025).

The historical marginalization of somatic knowledge has left significant gaps in our understanding of human physiology, health, and well-being. The integration of qualitative and constructivist research methods into the study of somatic therapies offers a means of bridging these gaps. By acknowledging the body not as a mechanical system but as an interconnected, dynamic entity capable of profound transformation, qualitative research provides the tools necessary to deepen our understanding of somatic healing. Moving forward, researchers must embrace these methodologies to capture the richness of somatic experiences, ensuring that these valuable practices receive the scholarly attention and clinical validation they deserve.

About the Lead Authors

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