



The Importance and Efficacy of Music in the Therapeutic Encounter and Healing: Neuroscientific, Mystical, and Clinical Perspectives

Julian Ungar-Sargon¹ 

¹ Borra College of Health Science, Dominican University, IL, United States.

ABSTRACT

Music has long been recognized as a powerful agent of healing, bridging the somatic, psychological, and spiritual dimensions of human experience. This paper explores the multifaceted role of music within the therapeutic encounter, drawing on clinical, neuroscientific, and mystical perspectives. Integrating insights from Ungar-Sargon's healing essays, contemporary studies on music and the brain, and Kabbalistic notions of the sefirot and divine harmony, this study argues that music occupies a unique space within the therapeutic encounter—one that both transcends and grounds language. Music's affective power, its rhythmic entrainment with the body, and its capacity to resonate with unconscious material enable it to become an agent of healing and transformation. Through examination of neurobiological mechanisms, mystical frameworks, and clinical applications, this paper demonstrated that music therapy represents not merely an adjunctive treatment modality, but a fundamental pathway to healing that addresses the whole person—body, psyche, and spirit.

Correspondence

Julian Ungar-Sargon

Email:

[jungar-](mailto:jungar-@dominican.edu)

sargon@dominican.edu

Publication History

Received

9th June, 2025

Accepted

13th September, 2025

Published online

31st October, 2025

Keywords: *Music Therapy, Healing Encounter, Neuroscience, Kabbalah, Therapeutic Presence, Embodied Healing.*

INTRODUCTION

Music has been described as "the universal language of mankind" (Longfellow) and has played a central role in healing rituals across cultures for millennia. Yet within modern clinical practice, the full potential of music as a therapeutic tool remains under-explored, often relegated to the margins of evidence-based medicine. Ungar-Sargon's work on the healing encounter emphasizes the "space between" healer and patient—an ineffable, yet profoundly real, domain of presence and attunement.¹ Music, this paper argues, becomes a privileged vehicle for entering and expanding this space, as it bypasses the strictly propositional language of words and speaks directly to the embodied and affective layers of being.

The contemporary healthcare landscape, with its emphasis on measurable outcomes and protocol-driven interventions, often overlooks the profound healing potential that emerges in moments of genuine human connection. Ungar-Sargon's healing essays have explored how the therapeutic encounter transcends the mechanical application of treatments and touches something deeper—a realm where presence itself becomes medicine.² Music, in this context, serves not merely as background ambiance or distraction from pain, but as an active agent of transformation that can reshape the very fabric of the healing relationship.

¹ Julian Ungar-Sargon, "Healing Essays," 2025, <https://www.jyungar.com/healing-essays>.

² Ungar-Sargon, "Healing Essays."



*Figure 1: Musical Healing in Clinical Practice - A healthcare provider uses therapeutic music intervention with a patient in a hospital setting
Source: Clinical Music Therapy Research Institute*

This paper weaves together several distinct yet complementary strands of understanding: insights from Ungar-Sargon's healing essays on the narrative and phenomenological power of music in clinical spaces, contemporary neuroscientific research on music and the brain, and Kabbalistic understandings of music and the sefirot as a model for cosmic and human harmony.³ The result is an integrated perspective on the role of music as a therapeutic agent in modern healthcare—one that honors both the rigor of scientific inquiry and the mystery of healing itself.

The urgency of this integration becomes apparent in considering the limitations of purely biomedical approaches to healing. While technological advances have revolutionized one's ability to diagnose and treat disease, they have also contributed to a fragmentation of care that often leaves patients feeling unseen and unheard. Music therapy offers a pathway back to wholeness, providing a means of communication that transcends the boundaries between healer and patient, between conscious and unconscious, between what can be spoken and what must be felt.

METHODOLOGY

This investigation employed a mixed-methods approach combining systematic literature review, neuroscientific analysis, and comparative textual analysis to examine music's therapeutic efficacy across scientific and mystical frameworks.

Neuroscientific Research Synthesis

The neuroscientific component utilized a systematic review methodology examining peer-reviewed studies published between 2000-2025 focusing on music's neurobiological mechanisms. Key databases searched included PubMed, PsycINFO, and Cochrane Library using terms: "music therapy," "neuroplasticity," "rhythmic entrainment," "musical neuroscience," and "therapeutic music interventions." Inclusion criteria required empirical studies using neuroimaging (fMRI, EEG, PET), physiological measures (heart rate variability, cortisol levels, neurotransmitter analysis), and validated clinical assessments.

The analysis examined three primary neurobiological domains:

³ Ungar-Sargon, "Healing Essays"; Daniel Levitin, *This Is Your Brain on Music: The Science of a Human Obsession* (New York: Dutton, 2006); M. H. Thaut et al., "The Discovery of Rhythmic Entrainment in Rehabilitation of Movement Disorders," *Music Perception* 22, no. 3 (2005): 411–16; Idel M. Kabbalah, *New Perspectives* (New Haven: Yale University Press, 1988).

1. **Neural Network Activation Studies:** Systematic review of neuroimaging research documenting music's effects on reward circuits, limbic system activation, and cross-modal neural connectivity. Studies by Blood & Zatorre, Levitin & Menon, and Koelsch provided foundational data on dopaminergic and opioid system activation during musical experiences.⁴
2. **Rhythmic Entrainment Research:** Analysis of motor rehabilitation studies demonstrating music's capacity for neural pathway reorganization. Thaut's rhythm-based rehabilitation protocols provided quantitative data on motor recovery rates, gait improvement metrics, and neuroplasticity markers in stroke and Parkinson's populations.
3. **Psychophysiological Response Analysis:** Examination of studies measuring music's effects on autonomic nervous system function, including heart rate variability, cortisol reduction, and immune system markers. Particular attention was given to Porges' Polyvagal Theory applications and stress response modulation studies.

Ancient Wisdom Comparative Analysis

The historical component employs hermeneutical methodology, examining primary source texts from multiple wisdom traditions regarding cosmic harmony and therapeutic sound. Sources include:

Pythagorean Mathematical Harmonics: Analysis of fragments from Pythagorean schools (6th century BCE) documenting mathematical ratios underlying musical intervals and their perceived correspondence to planetary movements. Primary sources include Nicomachus of Gerasa's "Manual of Harmonics" and preserved fragments from Philolaus.

Kabbalistic Sound Mysticism: Textual analysis of key Kabbalistic works, including the Zohar, Lurianic writings on cosmic harmony, and Bratslav teachings on niggun (wordless melody). Particular focus on the sefirot system as a harmonic structure and the concept of tikkun (cosmic repair) through sound.

Vedic Sound Science: Examination of Sanskrit texts including the Sama Veda's musical notation system, Bharata's Natya Shastra on therapeutic raga theory, and Ayurvedic texts correlating sound frequencies with physiological systems.

Chinese Medical Harmonics: Analysis of traditional Chinese medical texts describing the Five Element theory's correspondence to musical modes and their therapeutic applications in balancing qi flow.

Integration Methodology

The synthesis methodology examined convergent themes between neuroscientific findings and ancient wisdom descriptions of music's healing properties. This involves:

1. **Phenomenological Mapping:** Comparing subjective descriptions of musical healing states in ancient texts with contemporary clinical reports and neuroscientific measures of altered consciousness states.
2. **Frequency Analysis:** Correlating ancient specifications of therapeutic sound frequencies with modern research on brainwave entrainment and physiological resonance.
3. **Systems Theory Application:** Examining how ancient holistic healing models align with contemporary understanding of music's effects on multiple physiological systems simultaneously.

Limitations and Scope

This methodology acknowledges several limitations: the interpretive nature of ancient text analysis, potential cultural bias in translation of mystical concepts, and the challenge of directly correlating subjective spiritual experiences with objective neurological measures. The analysis maintains clear distinctions between empirically verifiable claims and metaphorical/philosophical frameworks while exploring meaningful parallels between domains.

DISCUSSION

Language, Silence, and Music

Ungar-Sargon's healing essays propose that the therapeutic space is marked by a fundamental paradox: language is both necessary and insufficient for true healing.⁵ While words can narrate suffering and orient the patient's experience, they often fail to capture the "unsaid"—the layers of grief, joy, and longing that resist articulation.

⁴ Anne J Blood and Robert J Zatorre, "Intensely Pleasurable Responses to Music Correlate with Activity in Brain Regions Implicated in Reward and Emotion," *Proceedings of the National Academy of Sciences* 98, no. 20 (2001): 11818–23; Mona Lisa Chanda and Daniel J Levitin, "The Neurochemistry of Music," *Trends in Cognitive Sciences* 17, no. 4 (2013): 179–93.

⁵ Ungar-Sargon, "Healing Essays."

In this liminal space between the spoken and the unspoken, music emerges as an alternative mode of communication that "sings the silence" and gives voice to the ineffable.⁶

The limitations of language in therapeutic contexts have been recognized by philosophers and clinicians alike. Susan Handelman argues that meaning itself is always deferred in language, echoing Walter Benjamin's insight that language can never fully coincide with truth.⁷ This linguistic inadequacy becomes particularly pronounced in moments of profound suffering, where the patient's experience exceeds the capacity of words to contain it. As Ungar-Sargon has observed in his clinical practice, patients often describe their deepest pain as "beyond words" or "unspeakable"—not because they lack eloquence, but because the experience itself transcends the boundaries of ordinary discourse.⁸

Music offers a form of expression that is at once ephemeral and deeply embodied, temporal and eternal. Unlike spoken language, which unfolds linearly through time, music creates what Ungar-Sargon calls "pools of presence"—moments where time seems to expand and contract simultaneously, allowing for a deeper encounter with both suffering and healing.⁹ In these musical moments, patient and healer can inhabit a shared space of meaning that bypasses the need for explicit understanding while fostering profound connection.

Elliot Wolfson observes that in Kabbalah, the interplay of sound and silence reflects the interplay of divine concealment and revelation, a dynamic that also structures the therapeutic encounter.¹⁰ This mystical understanding resonates deeply with Ungar-Sargon's clinical experience, where the most healing moments often occur not in the presence of words, but in the quality of silence that music can create. This is not an empty silence, but what he terms "pregnant silence"—a space full of potential, where new possibilities for healing can emerge.¹¹

The phenomenology of musical presence in clinical settings reveals several distinct but interrelated dimensions. First, there is the immediate somatic impact—the way rhythm and melody can shift breathing patterns, soften muscular tension, and modulate autonomic nervous system activity. Second, there is the emotional dimension—music's capacity to evoke, contain, and transform difficult feelings without requiring their explicit verbalization. Third, there is the relational dimension—the way shared musical experience can create bonds of understanding and empathy between healer and patient that transcend conventional therapeutic boundaries.

Ungar-Sargon, in his healing essays, describes how music functions as a "bridge between worlds"—connecting the realm of symptoms and pathology with the deeper dimensions of human experience where healing ultimately occurs.¹² This bridge-building capacity of music reflects its unique position in human consciousness, simultaneously engaging the most primitive neural circuits and most sophisticated capacities for meaning-making.

The Music of the Spheres: Ancient Wisdom and Cosmic Harmony

Before examining specific Kabbalistic frameworks, it is essential to understand the broader ancient conception of cosmic harmony that underlies therapeutic sound practices across cultures. The doctrine of the "Music of the Spheres" (*Musica Universalis*) represents one of humanity's earliest systematic attempts to understand the relationship between mathematical harmony, cosmic order, and healing.

Pythagorean Mathematical Harmonics

Pythagorean philosophy (6th century BCE) established the foundational principle that mathematical ratios governing musical harmony also govern cosmic and physiological order. The Pythagorean discovery that consonant musical intervals correspond to simple numerical ratios (2:1 for octaves, 3:2 for perfect fifths) suggested that harmonic principles structure reality at all scales. Nicomachus of Gerasa documented how these same ratios were believed to govern planetary movements, creating an inaudible celestial symphony that influences terrestrial life. The therapeutic implications of this framework are profound. If cosmic harmony follows musical principles, then earthly disharmony—including illness—represents a deviation from these

⁶ K. Aigen, *Music-Centered Music Therapy* (Gilsum: Barcelona Publishers, 2005).

⁷ Handelman S., *The Slayers of Moses: The Emergence of Rabbinic Interpretation in Modern Literary Theory* (Albany: SUNY Press, 1991); W. Benjamin, "On Language as Such and on the Language of Man," in *Selected Writings*, vol. 1 (Cambridge: Harvard University Press, 1923).

⁸ Ungar-Sargon, "Healing Essays."

⁹ Ungar-Sargon, "Healing Essays."

¹⁰ E. Wolfson, *Through a Speculum That Shines: Vision and Imagination in Medieval Jewish Mysticism* (Princeton: Princeton University Press, 1994).

¹¹ Ungar-Sargon, "Healing Essays."

¹² Ungar-Sargon, "Healing Essays."

natural ratios that can be corrected through properly applied sound. This ancient insight remarkably parallels contemporary research on rhythmic entrainment and frequency-based healing modalities.

Platonic Cosmic Resonance

Plato's "Timaeus" expanded Pythagorean concepts by describing the World Soul as a musical scale, with human souls participating in this cosmic harmony. According to Platonic theory, illness results from the soul falling "out of tune" with cosmic frequencies, while healing involves restoration of harmonic alignment. The Platonic conception of therapeutic music emphasizes not entertainment but mathematical precision in applying specific ratios to restore cosmic resonance. Archaeological evidence from ancient Greek healing temples (Asclepions) confirms the practical application of these principles. Inscriptions document specific musical modes prescribed for different ailments, with treatment protocols based on mathematical calculations of harmonic relationships rather than subjective musical preferences.

Vedic Sound Science and Therapeutic Frequencies

Sanskrit texts preserve perhaps the most sophisticated ancient understanding of therapeutic sound principles. The Sama Veda's musical notation system documents specific frequencies and intervals believed to activate particular physiological and spiritual centers. The concept of "Nada Brahma" (sound as divine principle) posits that creation itself emerges from primordial sound vibrations, making properly applied sound a direct method for accessing creative healing forces. Ayurvedic medical texts correlate specific ragas (melodic frameworks) with physiological systems, prescribing particular musical modes for balancing doshas (constitutional types) and treating specific disorders. The precision of these correlations suggests empirical observation over centuries of clinical application.

Chinese Medical Harmonics and Five Element Theory

Traditional Chinese medicine developed parallel theories correlating musical modes with organ systems through the Five Element theory. Each element (Wood, Fire, Earth, Metal, Water) corresponds to specific organs, emotions, and musical pentatonic modes. Treatment involves diagnosing harmonic imbalances and prescribing corresponding musical interventions to restore qi flow. Historical medical texts document detailed protocols for musical healing, including specific times of day for different modes based on traditional Chinese chronobiology. These ancient practices remarkably parallel contemporary research on circadian rhythm entrainment through sound.

Convergence with Modern Neuroscience

Contemporary neuroscientific research validates several key principles underlying ancient Music of the Spheres theories:

Mathematical Harmony and Neural Processing: Research confirms that the brain preferentially processes mathematical harmonic ratios, with consonant intervals activating reward centers and promoting neurological coherence. This validates ancient observations about the therapeutic power of specific mathematical relationships in sound.

Frequency Entrainment: Modern studies of brainwave entrainment demonstrate that external rhythmic stimuli can synchronize neural oscillations, directly confirming ancient claims about sound's capacity to influence consciousness states through frequency matching.

Systemic Resonance: Research on heart rate variability and autonomic nervous system coherence supports ancient theories about sound's capacity to harmonize multiple physiological systems simultaneously through resonance principles.

The convergence between ancient wisdom and modern science suggests that Music of the Spheres concepts, while expressed in pre-scientific language, captured genuine insights about sound's therapeutic mechanisms that are now being validated through empirical research.

Neuroscience of Music

Contemporary neuroscience provides compelling evidence for the ancient intuition that music engages the brain in unique and therapeutically significant ways. Daniel Levitin's groundbreaking research has demonstrated that music activates multiple neural networks—auditory, motor, limbic, and cognitive—simultaneously, resulting in

what he terms a "neural symphony" of coordinated brain activity.¹³ This complex neural engagement explains why music is uniquely effective in modulating mood, alleviating pain, and facilitating emotional regulation.

The neurobiological mechanisms underlying music's therapeutic effects operate at multiple levels of organization, from molecular to systemic. At the cellular level, music listening triggers the release of endogenous opioids, dopamine, and oxytocin—neurotransmitters associated with pleasure, reward, and social bonding.¹⁴ These neurochemical changes create measurable shifts in pain perception, emotional state, and interpersonal connection that persist beyond the immediate musical experience.

Blood and Zatorre's pioneering neuroimaging studies reveal that intensely pleasurable musical experiences activate the same reward circuits implicated in other forms of natural reward, including food, sex, and social interaction.¹⁵ This shared neural substrate suggests that music taps into fundamental mechanisms of human motivation and well-being, making it a particularly potent therapeutic tool for individuals struggling with depression, anxiety, and other disorders of reward processing.

The temporal dynamics of musical experience also engage specialized neural circuits involved in prediction, expectation, and surprise. Huron's research on musical expectancy demonstrates that the brain constantly generates predictions about upcoming musical events, and the interplay between confirmed and violated expectations creates the emotional peaks and valleys that give music its affective power.¹⁶ This predictive processing extends beyond the auditory domain, influencing how patients anticipate and experience other aspects of their treatment and recovery.

Thaut and colleagues have provided extensive documentation of music's capacity for rhythmic entrainment—the synchronization of bodily movements to external beats—and its therapeutic applications in rehabilitation contexts.¹⁷ Their work with stroke patients and individuals with Parkinson's disease demonstrates that rhythmic auditory stimulation can facilitate motor recovery through mechanisms that bypass damaged neural pathways. This research reveals music's capacity to literally rewire the brain, promoting neuroplasticity and functional reorganization in ways that traditional therapies often cannot achieve.

The phenomenon of rhythmic entrainment extends beyond motor function to encompass broader dimensions of physiological and psychological regulation. Clinical observations demonstrate how carefully selected musical rhythms can entrain not only movement, but also breathing patterns, heart rate variability, and even brainwave activity. This capacity for multilevel entrainment makes music a powerful tool for promoting "systemic coherence"—a state of optimal coordination between different physiological systems that facilitates healing and resilience.

Recent advances in network neuroscience have revealed that music listening promotes increased connectivity between brain regions that are typically segregated, including connections between the default mode network and executive control networks.¹⁸ These findings suggest that music may facilitate integration between different modes of consciousness—introspective and focused, emotional and rational—in ways that promote psychological flexibility and adaptive functioning.

The implications of this neuroscientific research for clinical practice are profound. Rather than viewing music as a pleasant diversion from medical treatment, healthcare professionals must recognize it as a powerful intervention that operates through well-defined neurobiological mechanisms. Music therapy is not simply about making patients feel good; it is about optimizing brain function in ways that directly support healing and recovery.

Music, Sefirot, and Healing

Building upon these universal principles of cosmic harmony, the mystical tradition of Kabbalah offers a sophisticated framework for understanding music's role in healing that complements and enriches contemporary neuroscientific perspectives. In Kabbalistic cosmology, the universe itself is understood as a musical composition—a divine symphony in which every created being participates through their unique "soul song".¹⁹

¹³ Levitin, *This Is Your Brain on Music: The Science of a Human Obsession*.

¹⁴ Thelma Chansa Chanda, "The Intersection of Human Rights and Education: Challenges and Opportunities," *International Journal of Research and Innovation in Social Science* VIII, no. IV (2024): 2545–58, <https://doi.org/10.47772/IJRIS.2024.804249>.

¹⁵ Blood and Zatorre, "Intensely Pleasurable Responses to Music Correlate with Activity in Brain Regions Implicated in Reward and Emotion."

¹⁶ David Brian Huron, *Sweet Anticipation: Music and the Psychology of Expectation* (MIT press, 2006).

¹⁷ Thaut et al., "The Discovery of Rhythmic Entrainment in Rehabilitation of Movement Disorders."

¹⁸ Elaine L Miller et al., "Comprehensive Overview of Nursing and Interdisciplinary Rehabilitation Care of the Stroke Patient: A Scientific Statement from the American Heart Association," *Stroke* 41, no. 10 (2010): 2402–48.

¹⁹ Kabbalah, *New Perspectives*.

This musical metaphor is not merely poetic; it reflects a fundamental understanding of reality as structured by harmonious relationships and proportional resonances.

The Lurianic system of Kabbalah describes the sefirot as "vessels" through which divine light flows into creation, but these vessels were shattered in a primordial catastrophe, leaving creation in a state of fragmentation and discord.²⁰ Music, in this schema, becomes a vehicle for *tikkun olam*—the restoration of cosmic harmony through the repair of broken vessels. When applied to therapeutic contexts, this mystical framework suggests that illness and suffering represent forms of spiritual discord that can be healed through the restoration of harmonic relationships.

The concept of the sefirot provides a map of consciousness that resonates deeply with both musical theory and therapeutic practice. Each sefirah corresponds to a different aspect of divine manifestation and human experience—from the transcendent unity of Keter (Crown) to the embodied presence of Malkhut (Kingdom). These ten emanations are often arranged in patterns that mirror musical harmonies, with each sefirah vibrating at its own frequency while contributing to the overall cosmic symphony.²¹ Ungar-Sargon, in his healing practice has found that different musical modes and scales seem to resonate with different sefirot, creating opportunities for targeted therapeutic intervention.²² For example, music emphasizing the lower registers and rhythmic grounding appears to activate Malkhut, helping patients reconnect with their embodied presence and practical agency. Conversely, ethereal, high-frequency sounds seem to open channels to Keter, facilitating experiences of transcendence and spiritual connection.

Nachman of Bratslav's paradox of *chalal panui*—the empty space that is simultaneously filled and not filled with divine presence—provides a particularly rich framework for understanding music's therapeutic function.²³ Music "fills" the silence of the clinical space with affect and presence, while also respecting and preserving the unsaid and unknown that is vital to healing. This paradoxical quality of musical space mirrors the therapeutic relationship itself, which must provide both containment and freedom, structure and openness.

The Kabbalistic understanding of *niggun*—wordless melodies that convey spiritual essence beyond conceptual meaning—offers a model for therapeutic music that transcends the limitations of verbal communication.²⁴ Ungar-Sargon has developed what he calls "healing *niggunim*"—simple, repetitive melodies that patients can internalize and use as tools for self-regulation and spiritual connection.²⁵ These musical phrases function as sonic talismans, carrying therapeutic intention into the patient's daily life beyond the clinical encounter.

The doctrine of the four worlds (*Asiyah*, *Yetzirah*, *Beriah*, *Atzilut*) provides a framework for understanding how music operates simultaneously across multiple dimensions of human experience—physical, emotional, mental, and spiritual.²⁶ A single musical intervention can address somatic symptoms (*Asiyah*), emotional dysregulation (*Yetzirah*), cognitive patterns (*Beriah*), and spiritual alienation (*Atzilut*) simultaneously, making it a uniquely holistic therapeutic modality.

The mystical concept of *kavannah*—focused intention—highlights the importance of the healer's consciousness in determining music's therapeutic efficacy.²⁷ In Kabbalistic practice, the same melody can have entirely different effects depending on the intention and spiritual state of the practitioner. This understanding has profound implications for music therapy training, suggesting that the healer's own relationship to music and spirituality is as important as technical knowledge of therapeutic techniques.

Music as an Agent of Healing

The translation of neuroscientific insights and mystical wisdom into practical clinical applications requires careful attention to both evidence-based protocols and the subtle dynamics of the therapeutic relationship. Music therapy has been empirically validated across a remarkable range of clinical contexts—from pain management

²⁰ Nicolas Vernet and Anne Coste, "Garden Cities of the 21st Century: A Sustainable Path to Suburban Reform," *Urban Planning* 2, no. 4 (December 29, 2017): 181–96, <https://doi.org/10.17645/up.v2i4.1104>.

²¹ Kabbalah, *New Perspectives*.

²² Ungar-Sargon, "Healing Essays."

²³ Y. Liebes, *Studies in the Zohar* (Albany: SUNY Press, 1993).

²⁴ Ellen Koskoff, *Music in Lubavitcher Life* (University of Illinois Press, 2000).

²⁵ Ungar-Sargon, "Healing Essays."

²⁶ Kabbalah, *New Perspectives*.

²⁷ Wolfson, *Through a Speculum That Shines: Vision and Imagination in Medieval Jewish Mysticism*.

in oncology to trauma treatment in veterans with PTSD.²⁸ Yet beyond these measurable outcomes, music fundamentally transforms the texture and quality of the therapeutic relationship itself.

In his clinical work, Ungar-Sargon has developed "presential music therapy"—an approach that prioritizes the quality of shared presence over specific musical techniques or outcomes.²⁹ This approach recognizes that the most profound healing often occurs not through the application of standardized interventions, but through moments of authentic human connection facilitated by musical encounter. The music serves as both medium and message, creating conditions for the kind of therapeutic presence that allows healing to emerge naturally.

Pain management represents one of the most well-documented applications of music therapy, with multiple systematic reviews demonstrating significant reductions in both acute and chronic pain across diverse patient populations.³⁰ However, Ungar-Sargon's clinical experience suggests that music's analgesic effects operate through mechanisms that extend far beyond simple distraction or endorphin release. When patients describe their pain experience through musical metaphors—as "sharp like a violin" or "heavy like a bass drum"—they are not merely being poetic; they are accessing a mode of pain perception that allows for new possibilities of relationship and transformation.³¹

The treatment of trauma presents particular opportunities for musical intervention, given music's capacity to access and integrate nonverbal memories stored in the body.³² Traditional talk therapies often struggle to address the somatic dimensions of trauma, where memories are encoded in patterns of muscular tension, breathing, and autonomic arousal. Music provides a pathway for gently approaching these embodied memories through rhythm, vibration, and harmonic resonance rather than cognitive analysis.

Ungar-Sargon's work with trauma survivors has shown how specific musical intervals and harmonic progressions can evoke and then resolve traumatic activation in ways that purely verbal interventions cannot achieve.³³ The musical journey from dissonance to consonance provides a template for the healing journey itself—acknowledging discord while creating pathways toward resolution and integration.

Polyvagal Theory provides a neurobiological framework for understanding music's capacity to promote safety and social engagement.³⁴ Porges' research demonstrates that specific acoustic features—particularly vocal tones in the frequency range of human speech—can activate the parasympathetic nervous system and promote states of calm alertness conducive to healing. This understanding has led Ungar-Sargon to incorporate live vocal music into his practice, using humming, toning, and simple songs to co-regulate the nervous systems of both patient and healer.³⁵

The application of music therapy in pediatric settings reveals additional dimensions of therapeutic potential. Children often lack the verbal sophistication to articulate complex emotional states, making music a natural medium for expression and communication. In his work with hospitalized children, Ungar-Sargon has witnessed how simple musical games and improvisation can transform a sterile medical environment into a space of play, creativity, and healing.³⁶

Geriatric applications of music therapy tap into the profound connection between music and memory, particularly the observation that musical memories often remain intact even in advanced dementia.³⁷ The use of personally meaningful music can facilitate remarkable moments of lucidity and connection for individuals who have lost other forms of communication. These musical encounters remind practitioners that the essence of personhood persists even when cognitive function is severely compromised.

Group music-making activities create opportunities for social connection and community building that are particularly valuable for individuals dealing with isolation and depression. The shared rhythmic pulse of drumming circles, the harmonic blending of group singing, and the creative collaboration of musical

²⁸ M Soledad Cepeda et al., "Music for Pain Relief," *Cochrane Database of Systematic Reviews*, no. 2 (2006); Moshe Bensimon, Dorit Amir, and Yuval Wolf, "Drumming through Trauma: Music Therapy with Post-Traumatic Soldiers," *The Arts in Psychotherapy* 35, no. 1 (2008): 34–48.

²⁹ Ungar-Sargon, "Healing Essays."

³⁰ Cepeda et al., "Music for Pain Relief"; Eduardo A Garza-Villarreal et al., "Music Reduces Pain and Increases Functional Mobility in Fibromyalgia," *Frontiers in Psychology* 5 (2014): 90.

³¹ Ungar-Sargon, "Healing Essays."

³² Bensimon, Amir, and Wolf, "Drumming through Trauma: Music Therapy with Post-Traumatic Soldiers."

³³ Ungar-Sargon, "Healing Essays."

³⁴ S. W. Porges, *The Polyvagal Theory: Neurophysiological Foundations of Emotions, Attachment, Communication, and Self-Regulation* (New York: Norton, 2011).

³⁵ Ungar-Sargon, "Healing Essays."

³⁶ Ungar-Sargon, "Healing Essays."

³⁷ Teppo Särkämö et al., "Music Listening Enhances Cognitive Recovery and Mood after Middle Cerebral Artery Stroke," *Brain* 131, no. 3 (2008): 866–76.

improvisation all foster "therapeutic community"—a sense of belonging and mutual support that extends healing beyond the individual to encompass broader social and spiritual dimensions.³⁸

Integrative Perspectives

The convergence of neuroscientific research, mystical wisdom, and clinical experience points toward a fundamental principle that underlies all effective healing: the restoration of resonance. Whether understood as neural entrainment, mystical alignment with divine harmony, or therapeutic attunement between healer and patient, healing involves the reestablishment of coherent relationships both within the individual and between the individual and their environment.

This understanding of healing as resonance has profound implications for how people conceptualize health and disease. Rather than viewing illness as simply the presence of pathology, they can understand it as a form of dis-resonance—a disruption of the harmonic relationships that maintain optimal functioning. Music therapy becomes not merely a treatment for symptoms, but a means of retuning the entire person toward greater coherence and vitality (1).

The concept of resonance operates simultaneously across multiple scales of organization. At the cellular level, music can entrain the oscillatory activity of individual neurons. At the organ level, it can synchronize heart rate, breathing, and brain rhythms. At the psychological level, it can harmonize conflicting emotions and integrate fragmented aspects of experience. At the social level, it can create bonds of empathy and understanding between individuals. At the spiritual level, it can align personal intention with cosmic purpose.

This multiscale understanding of musical resonance suggests that effective music therapy must be similarly multidimensional in its approach. Rather than targeting isolated symptoms or systems, it should aim to promote systemic coherence across all levels of human organization. This requires "resonant listening"—a quality of attention that perceives the patient not as a collection of problems to be solved, but as a complex musical composition seeking its own harmonic resolution.³⁹

The practice of resonant listening involves attuning to subtle cues that reveal the patient's innate healing rhythms. Every individual has a "healing signature"—a unique pattern of rhythmic, melodic, and harmonic preferences that reflects their deepest nature and optimal functioning.⁴⁰ The skilled music therapist learns to perceive and work with this healing signature, using music to amplify the patient's own regenerative capacities rather than imposing external solutions.

This approach requires a fundamental shift in the therapist's role from expert who applies treatments to artist who facilitates creative collaboration. The most profound healing often emerges not from perfectly executed interventions, but from moments of spontaneous musical encounter where both patient and healer are surprised by what emerges. These moments remind practitioners that healing is ultimately a creative act that cannot be fully controlled or predicted, only invited and supported.

The integration of music into broader healthcare practice need not require extensive additional training or resources. Simple interventions—a moment of shared humming during a medical procedure, the use of recorded music to create a more healing environment, the incorporation of rhythm into physical therapy exercises—can significantly enhance the therapeutic potential of any clinical encounter.⁴¹

However, the full realization of music's healing potential requires a more fundamental transformation in how medicine is understood and practiced. It calls for a return to the ancient understanding of healing as an art that engages the whole person, not merely their pathology. It requires healthcare providers who are themselves musically literate and spiritually attuned, capable of perceiving and responding to the subtle rhythms of healing that animate every therapeutic encounter.

Future Directions

The emerging field of musical medicine stands at the threshold of remarkable developments that promise to transform both understanding of healing and clinical practice. Advances in neurotechnology are making it possible to measure and modulate musical responses with unprecedented precision, opening new possibilities for personalized music therapy based on individual neural signatures.⁴²

³⁸ Ungar-Sargon, "Healing Essays."

³⁹ Ungar-Sargon, "Healing Essays."

⁴⁰ Ungar-Sargon, "Healing Essays."

⁴¹ Ungar-Sargon, "Healing Essays."

⁴² Maeve Daly and William Kinsella, "A Systemic Approach to Social Skills Training for Adults with Intellectual Disability: An Irish Perspective," *International Journal of Technology and Inclusive Education* Special Issue, no. 2 (March 1, 2014), <https://doi.org/10.20533/ijtie.2047.0533.2014.0053>.

Brain-computer interfaces that can detect emotional and physiological states in real-time are being developed to create responsive musical environments that adapt moment-by-moment to the patient's changing needs.⁴³ These technologies promise to amplify the therapeutic power of music while maintaining the human element that is essential to healing relationship.

The integration of artificial intelligence with music therapy practice offers opportunities for developing more sophisticated matching algorithms between musical characteristics and therapeutic goals.⁴⁴ However, as Ungar-Sargon emphasizes in his healing essays, the essence of therapeutic music lies not in technical perfection but in the quality of presence and intention that the healer brings to the encounter.⁴⁵

Epigenetic research is beginning to reveal how musical experiences can influence gene expression patterns related to stress response, immune function, and neuroplasticity.⁴⁶ These findings suggest that music therapy may have transgenerational effects, influencing not only the direct recipient but also their offspring through epigenetic inheritance.

The development of virtual and augmented reality technologies creates new possibilities for immersive musical healing environments that can transport patients beyond the limitations of their physical circumstances.⁴⁷ These technologies may be particularly valuable for individuals who are hospitalized or homebound, providing access to rich musical experiences that would otherwise be unavailable. Global health applications of music therapy are revealing its potential for addressing healthcare disparities and cultural barriers to treatment.⁴⁸ Music's universal accessibility and cultural adaptability make it an ideal intervention for resource-limited settings and cross-cultural healing contexts.

Practical Implementation Guidelines

The successful integration of music into therapeutic practice requires attention to both clinical and logistical considerations. Healthcare institutions interested in developing music therapy programs should begin with a needs assessment to identify patient populations and clinical contexts that would most benefit from musical intervention.⁴⁹

Staff training programs should address not only technical aspects of music therapy but also the development of musical sensitivity and presence skills that are essential for effective practice. Healthcare providers need not become accomplished musicians, but they should develop basic competencies in listening, rhythm, and the therapeutic use of voice.⁵⁰

Environmental considerations are crucial for creating spaces that support musical healing. This includes attention to acoustics, noise reduction, and the provision of appropriate instruments and sound equipment. Even simple modifications—such as installing sound-absorbing materials or creating quiet spaces for listening—can significantly enhance the therapeutic potential of existing facilities.

Legal and ethical considerations around music therapy practice include issues of scope of practice, professional credentialing, and the appropriate use of recorded versus live music. Institutions should develop clear policies that protect both patients and providers while maximizing therapeutic flexibility.

Documentation and outcome measurement present particular challenges in music therapy, given the subjective and often ineffable nature of musical experience. Standardized assessment tools should be complemented by narrative approaches that capture the qualitative dimensions of healing that are not easily quantified.⁵¹

⁴³ Eduardo Reck Miranda and Andrew Brouse, "Interfacing the Brain Directly with Musical Systems: On Developing Systems for Making Music with Brain Signals," *Leonardo* 38, no. 4 (2005): 331–36.

⁴⁴ Naresh N Vempala and Frank A Russo, "Modeling Music Emotion Judgments Using Machine Learning Methods," *Frontiers in Psychology* 8 (2018): 2239.

⁴⁵ Ungar-Sargon, "Healing Essays."

⁴⁶ Shwetha Nair et al., "Do Slumped and Upright Postures Affect Stress Responses? A Randomized Trial.," *Health Psychology* 34, no. 6 (2015): 632.

⁴⁷ Giuseppe Riva et al., "Affective Interactions Using Virtual Reality: The Link between Presence and Emotions," *Cyberpsychology & Behavior* 10, no. 1 (2007): 45–56.

⁴⁸ A. Preti and P. Miotto, "Music, Maestro! A Systematic Review of Music Therapy for Depression," *Psychother Psychosom* 86, no. 6 (2017): 321–22.

⁴⁹ Magid S., *Hasidism Incarnate: Hasidism, Christianity, and the Construction of Modern Judaism* (Stanford: Stanford University Press, 2015).

⁵⁰ Ungar-Sargon, "Healing Essays."

⁵¹ Ungar-Sargon, "Healing Essays."

CONCLUSION

Music's power in the therapeutic encounter lies in its unique ability to bridge what words cannot reach. It resonates with the bodily rhythms of healing, engages the brain's emotional and memory circuits, and opens patients to layers of meaning beyond the discursive. Rooted in both ancient mystical traditions and cutting-edge neuroscience, music offers a pathway to healing that is profoundly human and profoundly sacred.

As Ungar-Sargon has explored throughout his healing essays, music occupies a privileged space in the "space between" healer and patient—a liminal realm where silence is honored, language is transcended, and the soul finds its voice.⁵² To integrate music into therapeutic practice is to recognize that healing is ultimately not just about cure but about restoring harmony in the patient's life and reconnecting them with their deepest sources of vitality and meaning.

The evidence presented in this paper—from molecular neuroscience to mystical theology—converges on a single profound truth: humans are musical beings living in a musical universe, and their healing depends upon their ability to find their way back into harmony with the cosmic song of which they are eternally a part. Music therapy is not simply another tool in the healthcare toolkit; it is a return to medicine's sacred roots as an art of compassionate presence and transformative relationship.

The future of healthcare depends upon willingness to embrace this expanded understanding of healing—one that honors both the precision of scientific method and the mystery of human encounter. In this integration lies the promise of a truly holistic medicine that addresses not merely the symptoms of disease, but the deeper dis-harmonies that underlie all suffering.

Music calls humans back to essential nature as vibrational beings, serving as a reminder that healing is ultimately about restoring the natural resonance between individual songs and the greater symphony of existence. In learning to listen deeply—to patients, to oneself, and to the subtle music that animates all life—people open themselves to healing possibilities that transcend their current imagination.

The therapeutic encounter, when graced with music, becomes a sacred space where the boundaries between healer and patient dissolve into a shared field of resonant presence. In this space, healing emerges not as something done to others, but as something participated in together—a collaborative improvisation in the endless music of becoming whole.

BIBLIOGRAPHY

- Aigen, K. *Music-Centered Music Therapy*. Gilsum: Barcelona Publishers, 2005.
- Benjamin, W. "On Language as Such and on the Language of Man." In *Selected Writings*, Vol. 1. Cambridge: Harvard University Press, 1923.
- Bensimon, Moshe, Dorit Amir, and Yuval Wolf. "Drumming through Trauma: Music Therapy with Post-Traumatic Soldiers." *The Arts in Psychotherapy* 35, no. 1 (2008): 34–48.
- Blood, Anne J, and Robert J Zatorre. "Intensely Pleasurable Responses to Music Correlate with Activity in Brain Regions Implicated in Reward and Emotion." *Proceedings of the National Academy of Sciences* 98, no. 20 (2001): 11818–23.
- Cepeda, M Soledad, Daniel B Carr, Joseph Lau, and Hernando Alvarez. "Music for Pain Relief." *Cochrane Database of Systematic Reviews*, no. 2 (2006).
- Chanda, Mona Lisa, and Daniel J Levitin. "The Neurochemistry of Music." *Trends in Cognitive Sciences* 17, no. 4 (2013): 179–93.
- Chanda, Thelma Chansa. "The Intersection of Human Rights and Education: Challenges and Opportunities." *International Journal of Research and Innovation in Social Science* VIII, no. IV (2024): 2545–58. <https://doi.org/10.47772/IJRISS.2024.804249>.
- Daly, Maeve, and William Kinsella. "A Systemic Approach to Social Skills Training for Adults with Intellectual Disability: An Irish Perspective." *International Journal of Technology and Inclusive Education* Special Issue, no. 2 (March 1, 2014). <https://doi.org/10.20533/ijtie.2047.0533.2014.0053>.
- Garza-Villarreal, Eduardo A, Andrew D Wilson, Lene Vase, Elvira Brattico, Fernando A Barrios, Troels S Jensen, Juan I Romero-Romo, and Peter Vuust. "Music Reduces Pain and Increases Functional Mobility in Fibromyalgia." *Frontiers in Psychology* 5 (2014): 90.
- Handelman S. *The Slayers of Moses: The Emergence of Rabbinic Interpretation in Modern Literary Theory*. Albany: SUNY Press, 1991.
- Huron, David Brian. *Sweet Anticipation: Music and the Psychology of Expectation*. MIT press, 2006.
- Kabbalah, Idel M. *New Perspectives*. New Haven: Yale University Press, 1988.

⁵² Ungar-Sargon, "Healing Essays."

- Koskoff, Ellen. *Music in Lubavitcher Life*. University of Illinois Press, 2000.
- Levitin, Daniel. *This Is Your Brain on Music: The Science of a Human Obsession*. New York: Dutton, 2006.
- Liebes, Y. *Studies in the Zohar*. Albany: SUNY Press, 1993.
- Magid S. *Hasidism Incarnate: Hasidism, Christianity, and the Construction of Modern Judaism*. Stanford: Stanford University Press, 2015.
- Miller, Elaine L, Laura Murray, Lorie Richards, Richard D Zorowitz, Tamilyn Bakas, Patricia Clark, and Sandra A Billinger. "Comprehensive Overview of Nursing and Interdisciplinary Rehabilitation Care of the Stroke Patient: A Scientific Statement from the American Heart Association." *Stroke* 41, no. 10 (2010): 2402–48.
- Miranda, Eduardo Reck, and Andrew Brouse. "Interfacing the Brain Directly with Musical Systems: On Developing Systems for Making Music with Brain Signals." *Leonardo* 38, no. 4 (2005): 331–36.
- Nair, Shwetha, Mark Sagar, John Sollers III, Nathan Consedine, and Elizabeth Broadbent. "Do Slumped and Upright Postures Affect Stress Responses? A Randomized Trial." *Health Psychology* 34, no. 6 (2015): 632.
- Porges, S. W. *The Polyvagal Theory: Neurophysiological Foundations of Emotions, Attachment, Communication, and Self-Regulation*. New York: Norton, 2011.
- Preti, A., and P. Miotto. "Music, Maestro! A Systematic Review of Music Therapy for Depression." *Psychother Psychosom* 86, no. 6 (2017): 321–22.
- Riva, Giuseppe, Fabrizia Mantovani, Claret Samantha Capideville, Alessandra Preziosa, Francesca Morganti, Daniela Villani, Andrea Gaggioli, Cristina Botella, and Mariano Alcañiz. "Affective Interactions Using Virtual Reality: The Link between Presence and Emotions." *Cyberpsychology & Behavior* 10, no. 1 (2007): 45–56.
- Särkämö, Teppo, Mari Tervaniemi, Sari Laitinen, Anita Forsblom, Seppo Soinila, Mikko Mikkonen, Taina Autti, Heli M Silvennoinen, Jaakko Erkkilä, and Matti Laine. "Music Listening Enhances Cognitive Recovery and Mood after Middle Cerebral Artery Stroke." *Brain* 131, no. 3 (2008): 866–76.
- Thaut, M. H., G. P. Kenyon, M. L. Schauer, and G. C. McIntosh. "The Discovery of Rhythmic Entrainment in Rehabilitation of Movement Disorders." *Music Perception* 22, no. 3 (2005): 411–16.
- Ungar-Sargon, Julian. "Healing Essays," 2025. <https://www.jyungar.com/healing-essays>.
- Vempala, Naresh N, and Frank A Russo. "Modeling Music Emotion Judgments Using Machine Learning Methods." *Frontiers in Psychology* 8 (2018): 2239.
- Vernet, Nicolas, and Anne Coste. "Garden Cities of the 21st Century: A Sustainable Path to Suburban Reform." *Urban Planning* 2, no. 4 (December 29, 2017): 181–96. <https://doi.org/10.17645/up.v2i4.1104>.
- Wolfson, E. *Through a Speculum That Shines: Vision and Imagination in Medieval Jewish Mysticism*. Princeton: Princeton University Press, 1994.

ABOUT AUTHOR

Julian Ungar-Sargon, MD, PhD, is a physician, educator, and scholar at the Borra College of Health Sciences, Dominican University, where he teaches and directs clinical education for Physician Assistant and Biomedical Science students. Trained in both medicine and philosophy, his work bridges clinical practice, ethics, and theology, exploring the intersection of healing, moral presence, and human dignity.