Title

Sounding Spirituality: A Proposal for Sound Healing as a Clinical Intervention for Adolescent Survivors of Verbal Abuse

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Sounding Spirituality:
A Proposal for Sound Healing as a Clinical Intervention for Adolescent Survivors of Verbal Abuse

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Abstract

Adolescence represents an incredibly complex period of human development that is marked by rapid neurobiological and personal change. Uniquely positioned between childhood and adulthood, adolescents search intensely for a sense of personal identity. This is more than just a search, however; it reflects a ubiquitous, biologically programmed hunger to know the self and establish a connection to a transcendent force—the core of what is understood as spirituality. When properly cultivated, spirituality encourages a sense of connectedness, meaning, purpose, and contribution. When disrupted, adolescents become significantly more susceptible to depression, anxiety, and other mental disorders. While genetic predispositions and psychosocial factors have been widely discussed as contributors to depression and anxiety, verbal abuse remains an overlooked yet pervasive risk factor that directly impacts two fundamental aspects of spiritual development: parent-child relationships and the formation of identity and personal expression. Although adolescent psychotherapy is widely utilized, its focus on disease and treatment may unintentionally reinforce stigma among participants. This limitation highlights a need for approaches that prioritize positive functioning and support long-term well-being. Sound healing offers such an approach. Unlike music therapy, sound healing employs acoustic vibrations, eliminating the pressures of musical literacy and structured performance. Using a positive psychology and spirituality framework, this study examines how group participation in singing bowl and vocal sound healing sessions can help adolescents cultivate positive emotional states and well-being, foster a strong sense of spiritual identity, and reclaim an inner voice silenced by verbal abuse.

Introduction / Literature Review

Adolescent depression is one of the most pervasive concerns of the twenty-first century. Among psychosocial factors, verbal abuse remains an overlooked yet prevalent risk factor that disrupts two fundamental aspects of adolescent development: parent-child relationships and the formation of identity.[1] Verbal abuse can be characterized as speech behaviors—screaming, attacking, name-calling, threatening, and rejecting—that intend to cause distress to a child."[2]

Although verbal abuse has not yet been recognized as a distinct form of child maltreatment, it affects hundreds of millions of children around the globe and is pervasive across nearly all forms of adult-to-child perpetration.[3] In the last decade, the prevalence of emotional abuse has increased and surpassed that of physical and sexual abuse.[4] Despite this shift, verbal abuse in particular is under-recognized by professionals who interact with children, because it often accompanies the perpetration of other maltreatment types. Although this poses challenges in identification and prevention, an overarching theme in attempts to define childhood verbal abuse (CVA) is adult or caregiver behavior that is verbally aggressive or violent. The most common source of CVA is from a parent or caregiver, constituting roughly 75% of adult-to-child perpetration.[5] Repeated perpetration of CVA increases the risk of developing clinical depression and anxiety by threefold and poses severe threats to the child's emotional development and sense

[1] Chris J. Boyatis, "Spiritual Development During Childhood and Adolescence," in *The Oxford Handbook of Psychology and Spirituality,* ed. Lisa J. Miller (Oxford University Press, 2024), 107.

[2] J. G. Hovens et al., "Childhood Life Events and Childhood Trauma in Adult Patients with Depressive, Anxiety and Comorbid Disorders vs. controls," Acta Psychiatrica Scandinavica 122, no. 1 (2010): 66-74, https://doi.org/10.1111/j.1600-0447.2009.01491.x.

[3] Dube Shanta et al.,"Childhood Verbal Abuse as a Child Maltreatment Subtype: A sSstematic Reeview of the Current Evidence," *Child Abuse & Neglect* 144 (2023): 1-15, https://doi.org/10.1016/j.chiabu.2023.106394.

[4] Dube Shanta et al.,"Childhood Verbal Abuse as a Child Maltreatment Subtype," 1-15.

[5] Dube Shanta et al.,"Childhood Verbal Abuse as a Child Maltreatment Subtype," 1-15.

of self-worth. Additionally, CVA is associated with white matter pathways involved in language processing and gray matter in the auditory cortex.[6] Thus, intense feelings of fear, anxiety, and shame can trigger adverse anatomical responses such as respiratory issues, vocal hoarseness or strain, and, in severe cases, a total loss of speech.[7]

The most common form of psychotherapy for adolescents is talk therapy. However, the expectation that the client must fully disclose details of abuse in order to receive appropriate guidance often exacerbates symptoms.[8] Therapist questionnaires have reported the rapid deterioration of client behavior following their disclosure of traumatic experiences. Adolescent participants are more prone to reliving traumatic memories and experiencing overwhelming negative emotions, particularly during and after verbal disclosure of their experiences.[9] Additionally, this disclosure may result in harmful parental reactions—such as rejection and blame—that can exacerbate clients' symptoms.[10] Clinical reports show that 19% of adolescents regretted their disclosures, and 43% felt that the disclosure had a harmful impact on the client and the family.[11] Negative perceptions and negative therapeutic experiences lead between

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[6] Jewook Choi et al., "Preliminary Evidence for White Matter Tract Abnormalities in Young Adults Exposed to Parental Verbal Abuse," *Biological Psychiatry* 65, no. 3 (2009): 227-234, https://doi.org/10.1016/j.biopsych.2008.06.022.

[7] Hasan Ibrahim Al-Balas, "Conversion Disorder with Aphonia in 12-year-old Male Patient: A Case Report," *International Journal of Surgery Case Reports* (2021) https://pmc.ncbi.nlm.nih.gov/articles/PMC8250451/.

[8] John B. Mordock, "Some Risk Factors in the Psychotherapy of Children and Families: Well-Established Techniques That Can Put Some Clients at Risk," *Child Psychiatry and Human Development* 29, no. 3 (1999): 229-244, https://doi.org/10.1023/a:1022617108584.

[9] Mordock, "Some Risk Factors in the Psychotherapy of Children and Families," 240.

[10] Mordock, "Some Risk Factors in the Psychotherapy of Children and Families," 240.

[11] Mordock, "Some Risk Factors in the Psychotherapy of Children and Families," 240.

28-75% of all adolescent clients to quit therapy prematurely, which significantly increases the risk of recurring disorders in adulthood.[12]

Although creative psychotherapies—such as music therapy and vocal therapy—are established alternatives, the overarching Western-traditional approach is still largely prescriptive, focusing too heavily on disease and treatment.[13] These limitations address a need for interventions that offer an alternative focus. Late twentieth and early twenty-first-century developments in the fields of positive psychology and spirituality prompted a shift in the paradigm. In the late 1990s, positive psychology, pioneered by Martin Seligman, emerged as a subfield to professionals historically focused on treating psychopathology.[14] The rise of positive psychology marked a Western shift from treating illness to cultivating wellness, and positive psychology interventions (PPIs) were developed with the intent to cultivate positive feelings, behaviors, and cognitions.[15]

Positive psychology paved the way for the emergence of spirituality as a distinct entity within the field of psychology. Prior to the 21st century, the concept of spirituality was largely overlooked in academia and even associated with psychopathology.[16] However, Dr. Kenneth Kendler's 1997 twin study on the genetic versus environmental factors of spirituality proved that

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[12] Signe Hjelen Stige et al., "Barriers and Facilitators in Adolescent Psychotherapy Initiated by Adults—Experiences That Differentiate Adolescents' Trajectories Through Mental Health Care," *Frontiers in Psychology: Psychology for Clinical Settings* 12 (2021) https://doi.org/10.3389/fpsyg.2021.633663.

[13] Mordock, "Some Risk Factors in the Psychotherapy of Children and Families," 236.

[14] Everett L. Worthington Jr. et al., "Virtues in Positive Psychology and the Psychology of Religion and Spirituality: Existing Overlap and Promising Possibilities," in *The Oxford Handbook of Psychology and Spirituality,* ed. Lisa J. Miller (Oxford Academic, 2024) https://doi.org/10.1093/oxfordhb/9780190905538.013.9.

[15] Alan Carr et al.,"The Evidence-Base for Positive Psychology Interventions: A Mega-Analysis of Meta-Analyses," *The Journal of Positive Psychology* 19, no. 3 (2024): 191–205. https://www.tandfonline.com/doi/full/10.1080/17439760.2023.2168564#d1e3312.

[16] Baysal Merve, "Positive Psychology and Spirituality: A Review Study," *Spiritual Psychology and Counseling* 7, no. 3 (2022): 359-388, https://dx.doi.org/10.37898/spc.2022.7.3.179.

a stronger personal spirituality is directly associated with lower levels of depression, protection against negative psychological effects of stress, and a decreased lifetime risk for alcoholism and nicotine dependence.[17] Additionally, using statistical modeling, Kendler found that spirituality is roughly 29 percent heritable and 71 percent environmental—the first major empirical discovery that established spirituality as an innate human quality distinct from religion.[18]

If Kendler discovered the "what," Dr. Lisa Miller, a clinical psychologist and Founder and Director of the Spirituality Mind Body Institute at Teachers College, Columbia University, proved the "how." Drawing on both Kendler and Seligman's work, Dr. Miller presented a novel and transformative perspective on the human spiritual condition. A series of MRI experiments on the neural correlates of spiritual experiences found a link between the brain's parietal cortex and a distinctly human capacity for developing a personal spirituality.[19] The parietal cortex is composed of specialized regions associated with goal-oriented actions, attention shifts, sense of agency, action inhibition, assigning value, and generating intention.[20] Subjects with high levels of depression displayed cortical thinning in the parietal cortex, while individuals with a strong sense of spiritual identity and regular engagement in spiritual practices displayed cortical thickening in the same region. Additionally, immersion in spiritual activity was associated with regeneration in the parietal region. This revolutionary neuroscientific evidence proved two major points: humans

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[17] Lisa Miller and Esmé Schwall Weigand, "Two Sides of the Same Coin," in *The Awakened Brain: The New Science of Spirituality and Our Quest for an Inspired Life* (Random House, 2021), 57.

[18] Miller and Weigand, "Two Sides of the Same Coin," 58.

[19] Lisa Miller, "Spiritual Awakening and Depression in Adolescents: A Unified Pathway or 'Two Sides of the Same Coin,'" *Bulletin of the Menninger Clinic* 7, no. 4 (2013): 332-348, https://doi.org/10.1521/bumc.2013.77.4.332.

[20] Tomas Dominik et al., "Libet's Legacy: A Primer to the Neuroscience of Volition," *Neuroscience and Behavioral Reviews* 157 (2024) https://www.sciencedirect.com/topics/neuroscience/parietal-cortex.

are biologically wired to pursue spiritual quest, and spirituality is neuroprotective against depression in the long-term.[21]

The notion that spirituality and depression are "two sides of the same coin" is particularly relevant to adolescents due to their unique developmental stage. One of the core aspects of adolescent development is individuation—the process through which individuals form a sense of self, identity, and inner perception of the world.[22] A fundamental part of individuation is *spiritual individuation,* the determination to find deeper meaning and purpose in oneself and life. During this process, young individuals seek a deeper sense of calling, often through a transcendent connection with a higher power. However, when this hunger to "know thyself" is neglected, adolescents become susceptible to depression—a disease of despair that affects half of adolescents at least once in their lifetime.[23]

Although spiritual individuation is a quest for *self* discovery, the outcome is almost entirely dependent on the impact of parental figures in the first decade. Parental support and openness to discussion play a vital role in adolescent development.[24] Children are naturally drawn to the sanctity of family, and within this structure, parents act as the "first village" of spiritual development through the facilitation of ongoing spiritual dialogue.[25] When parents provide the opportunity for open dialogue, children develop an increased capacity for forgiveness, commitment, and compassion, profoundly affecting the way they treat others and

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[21] Miller, "Spiritual awakening and depression in adolescents," 332-348.

[22] Lisa Miller, "The Big Job of Adolescence: Individuation and Spiritual Individuation," in *The Spiritual Child: The New Science on Parenting for Health and Lifelong Thriving,* St. Mark's Press, 2015), 210.

[23] Miller, "The Big Job of Adolescence: Individuation and Spiritual Individuation," 210.

[24] Alethea Desroisers et al., "Parent and Peer Relationships and Relational Spirituality in Adolescents and Young Adults," *Psychology of Religion and Spirituality* 3, no. 1 (2011): 39-54, https://doi.org/10.1037/a0020037.

[25] Chris J. Boyatis, "Spiritual Development During Childhood and Adolescence," in *The Oxford Handbook of Psychology and Spirituality,* ed. Lisa J. Miller (Oxford University Press, 2024), 107.

view the world throughout life.[26] Conversely, when this pillar is threatened by verbal abuse, adolescents lose trust, feel misguided, and become significantly more susceptible to severe mental disorders in adulthood.

Hence, the key to rebuilding trust, sense of self, and personal expression may lie in the cultivation of spirituality in alternative settings in which adolescents can feel supported, safe, and loved. If spirituality—the deeply personal sense of transcendent connection—is such a powerful neuroprotective force, the question arises: through what modality can spirituality be nurtured in a way that is accessible, effective, and sustainable for adolescents?

I propose the use of sound healing techniques—specifically toning, visualization, and community practice—as the bridge between psychological intervention and spiritual cultivation. Sound healing provides a unique approach to strengthening the inner self and outer relationship through the resonance of sound. When practiced in group settings, participants can feel a stronger sense of community and solidarity as they take initiative in their healing journeys. Additionally, the use of non-verbal sounds in conjunction with singing bowl frequencies provides a space in which participants can process emotions and thoughts without verbal recollection of traumatic events. Although discourse on the intersection of spirituality and mental health has become more prevalent, there is a notable lack of research on the link between spirituality and verbal abuse. While there is empirical evidence of singing bowl frequencies improving adult spiritual wellness, the implications of sound healing as an intervention for adolescent survivors of verbal abuse have not yet been explored. Therefore, I present an original argument in favor of the integration of sound healing into adolescent clinical contexts, catered specifically toward those healing from the impact of verbal abuse.

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[26] Miller, "A Spiritually Grounded Childhood Starts Here," 143.

Methodology

I employ an interdisciplinary, mixed-methods systematic review of peer-reviewed empirical studies, published books, and literature reviews. This approach allows me to integrate research, theoretical perspectives, and frameworks across multiple fields into one coherent narrative. Because spirituality is the core of my argument, it was essential for me to become familiar with existing definitions, empirical studies, and ongoing discussions both within and outside of the field. In order to gain a better understanding of the impact of verbal abuse, I analyzed sources on emotional abuse that cross-reference verbal abuse. Within this literature, I found studies that emphasized the significance of parent perpetrators of child abuse, and I compared these findings with the perspectives on the parental role in influencing adolescent spiritual development. In regard to treatments, there is an abundance of literature on child and adolescent psychotherapy, but I focused specifically on the limitations of Western psychotherapy. Although sound healing is a central part of my research, there are few empirical studies that exist within the disciplines of sound studies, psychology, and neuroscience. Thus, I primarily reference books written by practicing clinicians who present unique experiences with clients. Because I argue against traditional psychotherapy, I use positive psychology as a framework for my proposed sound healing intervention. Through these methods, I identify gaps in the existing literature and propose a model for a sound healing practice rooted in spirituality and positive psychotherapy. Rather than testing a single hypothesis, my goal is to identify meaningful points of convergence across spirituality, positive psychology, sound healing, and adolescent development.

Sound Healing: History and Therapeutic Effects

Sound healing is loosely defined as "techniques that involve the direct impact of sound—physical, acoustical vibrations—on bodily structures, physiological functioning, and neural activity."[27] Shamans—meditators between the natural and spiritual worlds—were among the earliest people to use sound as a healing modality, with rituals and belief systems that were established 20,000 to 50,000 years ago.[28] Although the exact origins of shamanic practices are unknown, shamanism has been practiced all over the world. To this day, it remains a sonically grounded practice that induces altered states of consciousness.[29] Shamans use the repetitive beating of drums and rattles to achieve an altered state of consciousness and help lead themselves and their clients back to health.[30] This act of shared consciousness set the precedent for spiritual rituals to follow.

Among some of the first resonant instruments used in sacred practice were singing bowls. Originating in Tibet 3,000-5,000 years ago, the bowls served both practical and ceremonial functions.[31] They were made of seven metals—gold, silver, mercury, copper, iron, tin, and lead—and were played by moving a wooden baton around the rim of the bowl, which produced a deep, resonant tone. Although the bowls are now widely recognized, they were once

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[27] Barbara J. Crowe and Mary Scovel, "An Overview of Sound Healing Practices: Implications for the Profession of Music Therapy," *Music Therapy Perspectives* 14, no. 1 (1996): 21-29, https://doi.org/10.1093/mtp/14.1.21.

[28] Mitchell L. Gaynor, *Sounds of Healing* (Broadway Books,1999), 36.

[29] MaryCatherine Burgess, "Contemporary Shamanic Practice in Scotland: A New Paradigm of Spirituality and Religion" (PhD diss., University of Edinburgh, 2005), 40.

[30] Gaynor, *Sounds of Healing,* 36.

[31] Gaynor, *Sounds of Healing,* 112.

considered mysterious, assumed to have been linked to shamanistic rituals that were not accepted in Tibetan Buddhist practice.[32] As the bowls were increasingly incorporated into spiritual rituals, Tibetan Buddhist traditions established that the tone of the singing bowl invokes *pranava* (Om), the universal unceasing sound that can bring enlightenment.[33]

In recent years, empirical studies on singing bowls have become prevalent, with a focus on inducing meditative states. Studies by the UC San Diego Center for Integrative Medicine lead the discussion, providing evidence for singing bowl sound healing as a medium for connecting with transcendent experiences and thus strengthening well-being and recovery from persistent mental disorders.[34]

While conversations on music and relaxed states have long dominated academia and popular media, sound healing has proven to induce a distinct state of consciousness. Sound induces a shift from the alert beta brain wave state to a relaxe theta wave state. The theta wave state, at 4-8 Hz, is dominant during REM sleep, which is associated with visualization, dreaming, emotional functions, and the retention of memories for emotionally adverse experiences.[35] REM—rapid eye movement—sleep is accompanied by muscle paralysis, rapid eye movements, muscle spasms, and cortical activation.[36] This circuitry is unique—even in cases of sleep paralysis and perceived loss of control, individuals are fully aware of their surroundings. REM

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[32] Gaynor, *Sounds of Healing,* 111.

[33] Lorne M. Schussel, "The Best Self Visualization Method: Clinical Implications and Physiological Correlates" (PhD diss., Columbia University. 2018).

[34] Tamara L. Goldsby et al., "Effects of Singing Bowl Sound Meditation on Mood, Tension, and Well-being: An Observational Study," *Journal of Evidence-Based Complementary & Alternative Medicine* no. 3 (2016): 401-406, https://pmc.ncbi.nlm.nih.gov/articles/PMC5871151/.

[35] Anneke Huyser, *Singing Bowl Exercises for Personal Harmony,* (Binkey Kok Publications, 1999) 93.; Marcus O. Harrington et. al., "Phase-Locked Auditory Stimulation of Theta Oscillations During Rapid Eye Movement Sleep," *Sleep* 44, no. 4 (2021) https://doi.org/10.1093/sleep/zsaa227.

[36] Mark S. Blumberg et al., "What is REM sleep?" *Current Biology* 30, no. 1 (2021): 38-49, https://pmc.ncbi.nlm.nih.gov/articles/PMC6986372/.

sleep is most prevalent in early human development, and while the daily allotment of REM declines with age, it remains an important function for neuroplasticity across the lifespan. If the REM sleep state has the potential to induce neural healing and rewiring, sound, as a facilitator of the theta state, may be the key to neural regeneration and protection.

This regenerative state is supported by the synchronization of sound waves and brain waves—a phenomenon known as entrainment. Entrainment is marked by the synchronization of two oscillations, similar to when two tuning forks vibrate at the same frequency after touching or two pendulums synchronize and begin to swing at the same tempo.[37] Neural entrainment is the gateway to regenerative states of awareness, and it is often the objective of existing sound healing methods.

Sound Healing Techniques

One foundational technique is toning—the use of the voice to express non-verbal sounds for the purpose of release and relief. Toning is done by finding a still posture, taking a deep inhalation, and producing a sustained sound on the exhale. The sound can be produced by humming with a closed mouth, sustaining vowel sounds, or maintaining a constant *Om.* While toning is usually done with syllables or tones, practitioners have paired toning with chant—rhythmic, repetitive vocalization used in spiritual practice—to help survivors of abuse release memories of trauma.[38] Paired with a grounding, constant singing bowl tone, the vocal and singing bowl frequencies synchronize through entrainment. In this heightened theta wave state,

[37] Miller, *The Awakened Brain,* 198.

[38] Gemma Perry, "Rhythmic Chanting and Mystical States Across Traditions," *Brain Sciences* 11, no. 1 (2021): 101, https://doi.org/10.3390/brainsci11010101; Gaynor, *Sounds of Healing,* 98.

participants can process emotions through verbal expression without pressure of verbally recalling experiences of trauma.[39]

In order to maintain a constant tone, participants must engage in deep breathing. As the diaphragm repeatedly expands to intake fresh air, the deep breathing slows the heart rate and calms the nervous system, encouraging heightened awareness. It is impossible to make mistakes in toning, which reduces pressure for young participants, especially those concerned with verbal expression.

Participants can experiment with different techniques and pairings to create a personalized experience. In Dr. Mitchell Gaynor's ESSENCE Sound Meditation, participants use toning, breath, and visualization to experience negative feelings as sounds, sense sound through vocalization, and surrender to negative feelings by visualizing the release of energy.[40] In one exercise, participants give subjective sounds to feelings, beginning with a low tone and raising the pitch until a particular tone resonates with their physical or emotional pain.[41] While sustaining the pitch, holding the singing bowl in the palm after striking it allows the participant to feel the physical vibrations, accelerating the process of entrainment.[42]

Of these multimodal techniques, visualization has proven to be particularly effective for youth. In Dr. Lorne Schussel's Best Self Visualization method, participants create an ideal, proxy-self and visualize sending each other loving-kindness—a Buddhist-derived mental state of unselfish and unconditional kindness to all beings.[43] When breath, vocals, visualization, and

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[39] Gaynor, *Sounds of Healing,* 98.

[40] Gaynor, *Sounds of Healing,* 174-175.

[41] Gaynor, *Sounds of Healing,* 100.

[42] Anneke Huyser, *Singing Bowl Exercises for Personal Harmony,* 83.

[43] Stefan G. Hofmann, "Loving-Kindness and Compassion Meditation: Potential for Psychological

singing bowl frequencies are combined and repeated, the state of heightened awareness can be sustained over time, contributing to lasting well-being.

Agency and Relational Spirituality Through Sound

At the individual level, the adolescent participant can use singing bowl frequencies to achieve a theta wave brain state—the key to reconfiguration and lasting healing. As the sound induces physical, mental, and spiritual relaxation, the participant becomes more receptive to their inner voice, recognizing their own thought patterns. While a traditional therapist would guide a client to reframe or replace old thought patterns with new ones, sound healing, through sound vibration, instead guides the participant to practice openness to the present state of awareness, negative or positive.[44] It is this shift in consciousness that prompts healing through transcendent awareness.

When adolescents take on active roles in creating sound through toning or vocal synchronization, they become strong agents in their own healing journeys. Agency—the perceived ability to affect one's own destiny and engage meaningfully with others—is an essential component of the adolescent developmental stage that encourages the cultivation of individual trust, which not only increases the effectiveness of the intervention but also shapes views of the self and the world in the long term.[45]

Interventions," *Clinical Psychology Review* 31, no. 7 (2011): 1126-1132, https://pmc.ncbi.nlm.nih.gov/articles/PMC3176989/#S1.

[44] Huyser, *Singing Bowl Exercises for Personal Harmony,* 25.

[45] Miller, *The Spiritual Child,* 198.

Agency, in turn, cultivates a strong sense of relational spirituality—personal spirituality that emphasizes altruism, love of neighbor, and commitment to others in regard to awareness of a transcendent power.[46] In one session of the Best Self Visualization method, young participants visualized sending each other loving-kindness—unconditional good will to others. Consequently, measures of trust increased significantly within the group. Group members actively filled the void created by the absence of parental love, functioning as a trust buffer.[47] As trust increases, individuals may initiate practices of self compassion, forgiveness, and hope, whether through a deeper connection with the innermost self or guidance from a higher source.[48]

Similar acts of trust can be initiated through sound. When participants practice sound healing techniques in group settings, the rate at which they enter an altered state of consciousness is significantly faster than if they were alone, a phenomenon often seen in prayer groups or other forms of spiritual practice.[49] When particularly strong emotional or spiritual bonds are formed, individuals can display synchronized brain wave patterns despite being in entirely separate locations.[50] This suggests that adolescents can retain spiritual connection post-intervention. When they contribute to their own well-being while also acting as active agents in their peers' journeys, adolescents display neural correlates of the spiritual brain—thicker parietal cortices—which indicate heightened personal wellness and thriving—everyone benefits.

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[46] Lisa Miller, *The Spiritual Child: The New Science on Parenting for Health and Lifelong Thriving* (St. Martin's Press, 2015), 53.

[47] Lorne Schussel and Lisa Miller, "Best Self Visualization Method with High-Risk Youth," *Journal of Clinical Psychology* 69, no. 8 (2013): 836-845, https://pubmed.ncbi.nlm.nih.gov/23775428/.

[48] Miller, *The Spiritual Child,* 73.

[49] Miller, *The Awakened Brain,* 190.

[50] Miller, *The Awakened Brain,* 197.

When adolescents begin to think critically about their relationship to their inner self and others, they are more likely to actively strengthen their neuroprotective spirituality in the long-term. In doing so, they become agents in improving their own well-being and reducing the risk of recurring mental disorders in adulthood. Spiritual connection, above all, is the perception of being loved, guided, held, and never alone. But it is more than just a belief—it is our birthright, and sound is a transformative medium through which we can harness its power.

Limitations

Due to the limited scope of my project, I have not yet considered the broader implications of sound healing practices beyond those of Himalayan cultures, genetic and environmental variations in depressive phenotypes, quantum mechanics and entanglement, the notion of the "universality of sound," and energy psychology. I am also limited to individual clinical reports of vocal sound healing techniques due to the lack of existing peer-reviewed empirical studies. However, I make evidence-based inferences in order to highlight the science of spirituality and to underscore the benefits of incorporating sonic and spiritual practices into adolescent psychotherapeutic settings.

Additionally, although these practices may serve as an alternative to traditional psychotherapy, there are limitations to characterizing it as a universal solution. Studies in linguistics and sound processing show that children's sound, music, and social perceptions are significantly impacted by genetic factors, lived experience, and cultural context.[51] Thus, sound

[51] Christina Y. Tzeng et al., "Developmental change in children's sensitivity to sound symbolism," *Journal of Experimental Child Psychology* 160 (2017): 107-118, https://doi.org/10.1016/j.jecp.2017.03.004; Nori Jacoby et al., "Universal and Non-universal Features of Musical Pitch Perception Revealed by Singing," *Current Biology* 29, no. 19 (2019) https://www.cell.com/current-biology/fulltext/S0960-9822(19)31036-X.

vibrations and frequencies that are perceived as pleasant or healing to one participant may be perceived negatively by another. Further, youth participants may also process sound differently based on their perceptions of the practitioner.[52] Although empirical studies have not yet addressed these implications in adolescent sound healing contexts, it is imperative that future research investigates these variables.

Conclusion

Despite recent empirical evidence, sound healing has yet to be recognized as a formal psychotherapeutic intervention. However, holistic approaches—such as yoga and Tai Chi—are becoming increasingly common in clinical contexts, particularly in the form of positive psychological interventions (PPIs). The clinical landscape is shifting as professionals increasingly recognize the importance of mind-body-spirit integration for mental health and sustainable wellness. Thanks to Dr. Lisa Miller's pioneering work, spirituality is now acknowledged as a standalone variable in empirical, clinical, and theoretical contexts. But if spirituality is so vital to the human condition, it is essential to consider the tools through which we can nurture the spiritual brain. Because sound healing is uniquely positioned at the intersection of ancient tradition, vibrational healing, and spiritual cultivation, it has the potential to shift the trajectory of modern clinical practice. The implications of sound healing for adolescents are extremely promising. While current interdisciplinary perspectives highlight the need for further research, progress can be made through discussion and integration. This proposal contributes to the emerging body of literature that underscores the importance of

[52] Liyu Cao and Joachim Gross, "Cultural Differences in Perceiving Sounds Generated by Others: Self Matters," *Frontiers in Psychology* (2015) https://pmc.ncbi.nlm.nih.gov/articles/PMC4667006/#sec13.

awakened awareness, serving as a call to action for lasting change in the landscape of adolescent mental health within an ever-changing world.

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