Explore 20 (2024) 39–43

Contents lists available at ScienceDirect

EXPLORE

journal homepage: www.elsevier.com/locate/jsch

Review Article

# Exploring the healing power of singing bowls: An overview of key findings and potential benefits

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A B S T R A C T

Singing bowl sound meditation is an ancient practice that has been used for centuries in Tibetan and Buddhist cultures as a form of healing and relaxation. The practice involves the use of singing bowls, which produce a soothing sound believed to have a powerful effect on the body's energy system, helping to balance the chakras and promote healing. Over the years, several studies have been conducted to explore the effects of singing bowl sound meditation on mood, tension, and well-being. The reasons behind the positive effects of singing bowl sound healings are not fully understood. Possible explanations include alterations in brain waves, binaural beats, and the vibrations of singing bowls interacting with the energy field surrounding the human body, known as the biofield. Studies have shown that singing bowl sound meditation can produce physiological and psychological responses, reducing negative affect and increasing positive affect, as well as improving blood pressure, heart rate, and respiratory rate. Singing bowl sound meditation may be an effective low-cost and low-technology intervention for reducing feelings of tension, anxiety, and depression while promoting spiritual well-being. However, further research is needed to determine the long-term effects of singing bowl sound meditation on physiological and psychological well-being, as well as its potential clinical applications.

**Research in context**

What is already known?

The practice of using singing bowls in sound healing meditation has been linked to a range of benefits, including decreased stress and anxiety, lowered heart rate and blood pressure, and improved spiritual wellness. The exact mechanisms behind these effects are not fully understood, but they may involve changes in brain waves, the biofield, or binaural beats. Further research is necessary to gain a more comprehensive understanding of these processes.

What does the study add?

The article provides a summary of current research regarding the impact of singing bowls on various aspects of health, both physical and mental. Additionally, the review underscores the importance of utilizing more rigorous research methodologies to establish the effectiveness of singing bowl therapies in reducing the burden of illness.

## Introduction

Singing bowl sound meditation is a traditional practice that has been utilized for thousands of years in Tibetan and Buddhist societies to promote healing and relaxation. The technique involves the skillful utilization of metallic bowls, typically made of various metals such as brass or crystal, to create a therapeutic auditory experience. These bowls are specifically designed to produce a resonant and calming sound when struck or played with a mallet. When the bowls are played, they emit harmonic tones and vibrations that can penetrate deeply into the body and impact the energy system. The sound waves and vibrations generated by the bowls are believed to interact with the body's energy centers, commonly known as chakras, which are considered vital points in the subtle energy system. The chakras are believed to be connected to different aspects of physical, emotional, and spiritual well-being. By using specific techniques and playing the bowls near or on the body, the resonant sound and gentle vibrations are thought to influence the flow of energy within the chakras, promoting balance and alignment. Furthermore, the calming effect of the sound and vibrations can induce a state of deep relaxation, reducing stress and tension in the body. This relaxed state is conducive to healing processes, as it allows the body's natural healing mechanisms to function more effectively. Overall, the technique

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https://doi.org/10.1016/j.explore.2023.07.007
Received 31 March 2023; Received in revised form 9 July 2023; Accepted 19 July 2023
Available online 21 July 2023

of sound healing with metallic bowls combines the power of sound, vibrations, and energy to facilitate the restoration of harmony and well-being. It is believed to have a profound impact on the body, mind, and spirit, promoting self-healing and supporting holistic wellness.[1] During a singing bowl sound meditation session, the individual typically assumes a comfortable position and focuses on their breath while listening to the singing bowl's sound. As the sound and vibration of the singing bowl fill the space, the mind and body gradually unwind, and the practitioner may enter a state of meditation.[2–5]

In sound healing practices, both single bowls and multiple bowls can be used, depending on the specific goals and preferences of the practitioner or individual receiving the therapy. Using a single bowl allows for a focused and concentrated sound experience. It provides a clear and distinct resonance that can be targeted to specific areas of the body or chakras. Different bowls may be selected based on their size, material, and the specific sound frequencies they produce, each having its own unique therapeutic qualities. On the other hand, utilizing multiple bowls enables a broader and more complex soundscape. Each bowl may produce a different tone or frequency, creating a rich tapestry of harmonies and vibrations. This approach allows for a more comprehensive and immersive healing experience, as different bowls can be positioned around the body to address various energy centers and promote overall balance. In terms of playing the bowls, they can be struck repeatedly with a mallet to sustain the sound. The duration of the sound produced from a single strike depends on various factors, such as the size and thickness of the bowl, the force applied, and the technique of the practitioner. Generally, the sound can last from a few seconds to several minutes, gradually fading away as the vibrations dissipate. The duration of playing the bowls and the number of strikes can be adjusted based on the specific intention of the session and the individual's response to the sound. The practitioner may employ different techniques, including striking the bowl once and allowing the sound to naturally decay, or striking it repeatedly to maintain a continuous sound.[2] Tibetan bowls, also known as Himalayan singing bowls (HSBs), are handcrafted using traditional methods. They have a unique metal composition that produces deep tones and harmonic overtones. The bowls create resonant sounds and powerful vibrations, promoting relaxation and energy flow. While Tibetan bowls have distinctive qualities, other types of bowls or chimes can also be used effectively in sound healing practices.[6] Over the years, few studies have examined the impact of singing bowl sound meditation on aspects such as mood, stress, and overall well-being. This review aims to provide outline of the primary outcomes of these studies, along with their implications for clinical use and directions for future research.

## Methodology

The authors conducted a review of literature to explore the potential benefits and healing power of singing bowls. They searched multiple electronic databases, including PubMed, MEDLINE, and Scopus, using a combination of keywords and MeSH terms. The search terms included "singing bowls," "sound therapy," "meditation," "healing," "wellness," "relaxation," "stress reduction," "buddhist," "tibetan," and "chakra." The search was limited to articles published in English and those that were peer-reviewed. The authors screened the articles based on their relevance to the topic and inclusion criteria, which included studies that investigated the effects of singing bowl therapy on physical, emotional, and spiritual well-being. They also included articles that discussed the history and cultural significance of singing bowls. The authors analyzed the articles and summarized the key findings, including the potential benefits of singing bowl therapy in reducing stress, anxiety, and depression, promoting relaxation, and improving overall well-being. Out of the 37 articles identified, 21 articles fulfilled the inclusion criteria.

## Current scientific evidence on singing bowls

Landry (2014) conducted a study to examine the physiological and psychological effects of including a Himalayan singing bowl (HSB) in a directed relaxation (DR) session. DR session is a guided process that promotes deep relaxation and mental focus through verbal instructions and imagery. The study employed a randomized crossover design, with 51 participants completing two sessions in random order, beginning with either 12 minutes of HSB or silence, followed by a 20-minute DR session. Prior to and after both sessions, blood pressure (BP), heart rate (HR), and Positive and Negative Affect Schedule (PANAS) scores were measured. Analysis of variance (ANOVA) and analysis of covariance (ANCOVA) were used to compare variables between both study days. The findings indicated that HSB resulted in a greater decrease (-9.6 mmHg in HSB V/s -6.8 mmHg in DR, p, 0.05) in systolic BP and HR compared to silence before DR. Diastolic BP showed a larger decrease with HSB, but the difference was not statistically significant (-2.0 mmHg in HSB V/s -0.3 mmHg in DR). Both hypertensive and normotensive subjects experienced significant BP changes with HSB and silence. PANAS scores decreased significantly with both interventions, suggesting a reduction in negative affect and an increase in positive affect. The authors concluded that HSB may serve as an adjunct to DR, eliciting physiological and psychological responses before DR. The results suggest that exposure to HSB can enhance BP and HR responses, making it a valuable tool for individuals seeking relaxation and stress reduction. However, further research is required to determine the long-term effects of HSB on physiological and psychological well-being, as well as its potential clinical applications.[1]

In a 2017 observational study, Goldsby et al. investigated the effects of 60 minutes Tibetan singing bowl meditation on the mood, anxiety, pain, and spiritual well-being of 62 adults, with an average age of 49.7 years. According to the study, the participants' post-meditation scores showed significantly less tension (POMS 0.14 $\pm$ 0.57 V/s 1.26$\pm$ 1.03, $p<0.0001$), anger (POMS 0.05 $\pm$ 0.19 V/s 0.85 $\pm$ 0.98, $p<0.0001$), fatigue (POMS 1.65 $\pm$ 1.12 V/s 0.42 $\pm$ 0.75, $p<0.0001$), and depressed mood (HADS 0.62 $\pm$ 0.51 V/s 0.85 $\pm$ 0.98, $p<0.0001$), compared to their pre-meditation scores. The reduction in tension was more noticeable in participants who were not familiar with this type of meditation. Additionally, participants reported a significant increase in their sense of spiritual well-being (FACIT Post meditation 3.64 V/s Pre meditation 2.85 $p< .001$) after the meditation. The authors did not mention about the number of sessions conducted in the study. These results suggest that Tibetan singing bowl meditation may be a low-cost and low-technology intervention that is effective in reducing tension, anxiety, and depression while promoting spiritual well-being. The findings also suggest that the practice may be particularly beneficial to those who have not previously practiced this form of meditation.[7]

A review conducted by Goldsby et al. (2020) suggested that Tibetan singing bowl sound healing, an ancient healing method, may be an effective treatment for reducing stress. The review included observational studies including the previous study of the author cited above which found that participants who underwent Tibetan singing bowl sound meditation experienced significant reductions in tension, anxiety, and depressed mood.[2,7] In addition, studies measuring heart rate variability and EEG have shown that different frequencies emitted from singing bowls are associated with various energy levels and relaxation states. The deepest relaxation was found to be associated with a distinct change in delta brain waves. However, further research is needed to fully understand the potential physiological changes in the brain due to singing bowl vibrations and their relaxation effect.[2]

To examine the human health effects of singing bowl therapies, Stanhope and Weinstein (2020) conducted a systematic review. The review analyzed four peer-reviewed studies, which explored the impact of singing bowls on healthy individuals, as well as patients with metastatic cancer and chronic spinal pain. Singing bowl therapy was defined as a holistic practice that utilizes singing bowls to promote relaxation,

reduce stress, and support overall well-being. Two of the studies had low-level designs that are located towards the bottom of the evidence-based medicine pyramid and considered to provide relatively weak evidence. The findings of the studies suggested that singing bowl therapies can have a positive impact on various health outcomes, including distress, anxiety, depression, fatigue, and physiological measures such as blood pressure, heart rate, respiratory rate, and anterior-frontal alpha values. Nonetheless, due to the limited number of studies, limited time period of study and the potential risk of methodological bias, the authors did not recommend the use of singing bowl therapies at present. This indicates that the included studies had certain limitations or shortcomings that could introduce bias into the results. The authors advised future studies to employ more robust methods with a longer timeframe to examine the effects of singing bowl therapies, resulting in evidence-based recommendations to reduce the burden of disease.[8]

Bergmann et al. (2020) carried out a randomized crossover study to investigate the effects of a struck singing bowl on subjective and objective sleepiness. The study involved 58 healthy participants who completed the Karolinska Sleepiness Scale and the pupillary unrest index after spending 20 minutes on a hammock above either a struck or silent singing bowl. The results showed that relaxation above a struck singing bowl significantly decreased subjective sleepiness as evaluated by the Karolinska Sleepiness Scale, particularly in women. However, there was no significant difference in objective sleepiness as evaluated with the pupillary unrest index between the two groups. Limitations of the study included the inability to fully blind participants to the sound and vibration of the singing bowl and the lack of actigraph assessment for sleep duration. Overall, the study suggests that singing bowls may be helpful in reducing subjective sleepiness, especially in women, but further research is needed to confirm these findings and explore the feasibility of using singing bowls in situations requiring high levels of alertness.[9]

The study conducted by Panchal et al. (2020) examined the impact of Himalayan Singing Bowls (HSB) meditation sessions on mood and heart rate variability (HRV). The study included 77 participants for psychological measurements using the Positive and Negative Affect Schedule (PANAS) and 17 participants for abbreviated Profile of Mood States (POMS) forms. Physiological measurements, including heart rate (HR), stress index (SI), and root mean square of standard deviation (RMSSD), were collected from 15 participants using the EmWave Pro device. The data were analyzed using Kubios HRV Premium software and paired t-tests.

The results showed that after the meditation sessions, participants experienced an improvement in positive affect (PA) and a reduction in negative affect (NA) based on PANAS. HRV parameters indicated a trend towards overall relaxation, with significant reductions in HR, SI, and an increase in RMSSD. Participants also reported reductions in tension, anger, fatigue, depression, and confusion, along with improvements in esteem-related affect (ERA) and vigor based on POMS. During the meditation sessions, participants were instructed to focus on the sound vibrations of the singing bowls or their breath. The sessions were conducted by a trained therapist using handmade singing bowls and a Ting-Sha. No other verbal instructions were given during the session, which lasted for 40 minutes and took place in a closed room with dim lighting. The HRV data analysis showed statistically significant changes in HR, RMSSD, and SI, indicating a reduction in sympathetic nervous system activity and an increase in parasympathetic tone. The initial 15 minutes of the meditation showed some activation of sympathetic activity, followed by a shift towards parasympathetic dominance. The study demonstrated positive changes in both psychological and physiological measures, indicating the potential benefits of HSB meditation for reducing stress and improving mood. The findings suggest that regular practice of such meditation sessions may have a positive impact on relaxation, mood, and overall well-being. Further research, including randomized trials and exploring the long-term effects of this intervention, is recommended.[10]

Walter et al. (2022) conducted a study to examine the neurophysiological impacts of a singing bowl massage, an ancient healing technique that has become increasingly popular. They recorded EEG, ECG, and respiration data from 34 participants before, during, and after the massage and evaluated subjective changes in well-being. The results showed that during the sound condition, overall EEG frequency reduced ($d = -0.30$, $p = 0.002$) in comparison to a resting state without any tasks, and global EEG frequency reduced even further ($d = -0.46$, $p < 0.001$) after the intervention, indicating a shift towards a more meditative, mindful state of consciousness. After the intervention, heart rate was significantly lower ($75.5 \pm 19.8$ vs. $71.5 \pm 17.9$, $p < 0.001$), while respiration rate was higher ($13.5 \pm 5.3$ vs. $15.2 \pm 6.3$, $p = 0.018$). Participants reported that the intervention improved their well-being, making them feel more balanced, integrated, and energized. The study does not provide details regarding the specific technique used, the type of bowl employed, whether the bowl was ringing continuously during a massage, or whether the Hess method was utilized. These findings suggest that singing bowl sound massage could be a promising technique for relaxation and mindfulness. However, further research is needed to confirm and build upon these findings.[11]

Rio-Alamos et al. (2023) conducted a randomized controlled trial to compare the relaxation response induced by a single session of Tibetan singing bowl (TSB) sound-based treatment with progressive muscle relaxation (PMR) and a control waiting list group (CWL) in adults with nonclinical anxiety. The study involved 50 participants who were randomly assigned to one of the experimental groups, and self-reported anxiety, electroencephalographic activity (EEG), and heart rate variability (HRV) were recorded at baseline, minute 15, minute 30, and minute 45. The results showed that a single session of TSB treatment was more effective in inducing relaxation than PMR and CWL, with significant reductions in alpha power and increased HRV in the TSB group. Both TSB and PMR showed significant reductions in self-reported anxiety compared with CWL, but the effect was more pronounced in the TSB group. The limitations of the study included a small sample size and the lack of follow-up evaluation for long-term vs. short-term effects. The authors suggest that TSB may be a useful acute intervention for stress and crisis situations or while waiting for conventional interventions.[12]

## Possible physiological mechanisms for the healing power of singing bowls

Although the mechanisms underlying the positive effects of singing bowl sound healing are not entirely clear, several possibilities have been proposed. One possible effect is that the sound has the potential to induce changes in brain wave patterns, such as shifting from beta waves to theta or delta waves, especially when listening to calming music or the soothing tones of singing bowls.[13–15] Binaural beats, in which the brain synchronizes with the difference in hertz between two tones played in each ear, may also impact brain waves, although the evidence on this is inconclusive, particularly in small pilot studies. Another theory suggests that the vibrations produced by the singing bowls interact with the biofield, the energy field surrounding the human body. This interaction may lead to vibrational attunement of both the body and its biofield, drawing parallels to the practices of Reiki and sound healing.[2] Furthermore, this concept holds potential implications for regenerative medicine, as the alignment of vibrations in the biofield and body may contribute to overall well-being and healing processes.[16] A prospective cohort study examined the effects of a singing bowl massage on psychological, physiological, and neurological levels. The study included 34 participants with a mean age of $36.03 \pm 13.43$ years, consisting of 24 females and 10 males. Electrophysiological data were recorded using EEG, ECG, and respiratory signals. The experimental procedure involved a baseline resting period, a 20-minute singing bowl massage, and another resting period. Questionnaires were administered to assess absorption capacity and changes in body sensation, emotional state, and mental state. The findings indicated a decrease in overall EEG power

during the singing bowl massage compared to the first resting state, particularly in the alpha 2, beta 1, beta 2, and gamma frequency bands. The second resting state also showed a reduction in EEG power compared to the first resting state, specifically in the alpha 2, beta 1, beta 2, and gamma frequency bands. There were no significant changes in heart rate variability (HRV) metrics, but the mean heart rate decreased, and the respiration rate increased after the intervention. Subjectively, participants reported feeling more integrated, balanced, vitalized, and experienced positive bodily and emotional changes. The majority also reported improved mental clarity and various aspects of consciousness. However, the Tellegen-Absorption Scale (TAS) scores did not correlate significantly with age or sex. The study suggests that singing bowl massage has physical and psychological benefits. However, the findings have limitations due to the small sample size, lack of clinical populations, and the need for more randomized controlled trials.[17] Ahn et al. examined the impact of different frequencies of a singing bowl's sound on the EEG patterns of listeners. The study revealed that the low-frequency range of the singing bowl's sound exhibited the highest energy, followed by a gradual decrease in energy for the mid-frequency and high-frequency ranges.[18] Trivedi et al. (2019) conducted a study comparing 20-minute sessions of HSB and Supine Silence (SS) for relaxation. The HSB group showed a consistent reduction in stress index and heart rate, as well as an increase in Root Mean Square of Successive Differences (RMSSD), indicating deeper relaxation and increased parasympathetic activity. In contrast, the SS group did not exhibit consistent reductions in stress or significant changes in HR and RMSSD. These findings suggest that HSB sessions induce greater relaxation and have a more significant impact on physiological parameters compared to SS.[1,2,7–9,11,12,19]

## Possible epigenetic effects of singing bowls

The study of epigenetics is an important factor in comprehending the possible genetic impacts of Tibetan singing bowls.[20] Tibetan singing bowls are commonly utilized in mindfulness practices and meditation sessions. The bowls' resonating sound and vibrations can serve as a focal point, aiding individuals in anchoring their attention to the present moment and increasing their awareness. By listening to and experiencing the sound vibrations, individuals can attain a state of relaxation, concentration, and heightened sensory awareness, which are fundamental aspects of mindfulness. Different mindfulness practices are often grouped together as they share the objective of cultivating present-moment awareness and fostering a non-judgmental and accepting approach towards one's experiences. Although specific techniques may vary, they act as diverse pathways towards achieving mindfulness and can complement each other in promoting overall well-being.[21] While there is currently a lack of research investigating the genetic effects of Tibetan singing bowls, other mindfulness practices such as Yoga, Tai Chi, and Qigong have been found to have epigenetic effects on gene expression. These practices are capable of influencing the expression of multiple genes that share common functions, resulting in improved immunity, reduced cell metabolism, delayed cell death, and decreased inflammation.[22–24] This implies that Tibetan singing bowls might induce comparable changes in gene activity, although additional research is necessary to validate these outcomes.

Mindfulness practices have been linked to positive psychological outcomes and have been found to be effective in treating mental health issues such as anxiety and depression.[22–24] These practices, which have been developed from ancient spiritual traditions, include meditation, breathing exercises, and yoga. Research using genome-wide methods to analyze gene activity has revealed that mindfulness practices like Tai Chi can trigger quick changes in gene expression in blood cells and regulate pathways related to inflammation.[22,23] The first cross-sectional study on Tai Chi examined the impact of Tai Chi on the methylation of 66 sites by analyzing saliva samples from experienced practitioners. DNA methylation is an epigenetic modification that involves the addition of a methyl group to the DNA molecule, often occurring at specific sites known as CpG sites. Methylation patterns can influence gene expression and play a role in various biological processes and health outcomes. The study revealed that practicing Tai Chi may protect against age-related epigenetic deterioration, which suggests that it has potential health benefits.[24] Overall, these findings provide a promising foundation for understanding the potential genetic effects of Tibetan singing bowls and underscore the need for further research in this area.

## For which conditions can clinicians suggest singing bowl meditation to their patients?

Based on the above evidence the authors recommend that clinicians can recommend singing bowl meditation to patients seeking relaxation, stress reduction, and improved well-being. Singing bowl meditation has been found to be effective in reducing tension, anxiety, and depression while promoting spiritual well-being. It has also been observed that physiological and psychological effects of adding a Himalayan singing bowl to a directed relaxation session produced greater declines in systolic blood pressure and heart rate compared to silence before directed relaxation. Additionally, Tibetan singing bowl sound healing may be a promising treatment for stress reduction, and observational studies have found significant reductions in tension, anxiety, depressed mood, and physical pain scores in participants. Singing bowl massage produces a shift towards a more mindful, meditative state of consciousness, lower heart rate, and higher respiration rate. There were improvements in various health outcomes in patients with metastatic cancer and chronic spinal pain, as well as healthy individuals, but due to the limited number of studies, it is not recommend to use singing bowl therapies at this stage. Relaxation above a struck singing bowl significantly lowers subjective sleepiness, particularly in women. Thus, clinicians can suggest singing bowl meditation to patients who are looking for relaxation, stress relief, and enhanced well-being, but more research is needed to determine the long-term effects of this practice on physiological and psychological health, as well as its potential clinical applications.

## Energy meditation sessions

Energy medicine refers to a broad category of alternative healing practices that focus on the manipulation and balance of subtle energy systems within the body to promote physical, emotional, and spiritual well-being. It operates on the principle that the human body is surrounded by an energy field or biofield and that imbalances or blockages in this energy can lead to illness or disease. Practitioners of energy medicine believe that by working with the body's energy systems, they can stimulate the natural healing abilities of the body, restore balance, and promote overall health.[25,26] In the study conducted by Carpenter et al. (2021), the researchers aimed to explore the potential negentropic effects observed during energy medicine sessions. They employed a custom-built device called a quantum noise generator (QNG) to capture and digitize random noise generated by electron tunneling and avalanche effects in Zener diodes. The QNG consisted of 16 independent channels for random data collection. Two metrics were developed to evaluate the temporal and spatial dependencies within the noise samples obtained from the 16 channels. These metrics were then combined to create a "spacetime" variable that measured fluctuations in entropy. This variable was utilized to analyze the data collected during 110 half-hour energy medicine sessions. To serve as a control, the researchers also examined the same metric in the data recorded eight hours after each energy medicine session, during periods when the laboratory was unoccupied. The results of the study demonstrated significant deviations from chance expectation in the QNG data recorded during the half-hour energy medicine sessions. The most notable deviation occurred at the 24-min mark, with deviations also observed between 20 and 29 min after accounting for multiple comparisons. Conversely, the data recorded eight hours after the sessions consistently showed no significant

results. These findings align with previous research suggesting that focused attention during activities such as energy medicine sessions may induce negentropic deviations in random physical systems. The study also addresses counterarguments to this interpretation and provides suggestions for future investigations in this field.[27]

## Future directions for research and practice

Singing bowl sound meditation has potential clinical applications that can benefit individuals seeking relaxation and stress relief. It has been found to improve various health outcomes, such as reducing distress, anxiety, depression, fatigue, tension, anger, and confusion while increasing vigour. Singing bowl therapies have also been observed to have physiological effects such as enhancing blood pressure and heart rate responses. Due to its low-cost and low-technology nature, singing bowl sound meditation is a desirable alternative to traditional treatments that promotes spiritual well-being.[1,7,8,11] The existing research on singing bowl sound meditation has some limitations, including a limited number of studies and the potential for methodological bias as determined by the systematic review by Stanhope et al.[8] To overcome these limitations, future studies should employ more rigorous methods to examine the effects of singing bowl therapies, enabling evidence-based recommendations to reduce the disease burden. Additionally, further research is necessary to understand the long-term impacts of exposure to Himalayan singing bowls on physiological and psychological well-being, as well as their potential clinical applications. Exploring the physiological changes in the brain caused by singing bowl vibrations and their relaxation effects is also essential. Future studies should investigate whether using a real physical bowl or a recorded sound yields similar effects, determine the most effective singing bowl procedures, understand common practices followed by individuals, and explore potential differences between various types of singing bowls in terms of materials, sizes, and manufacturing techniques. Examining these aspects comprehensively would contribute to a better understanding and optimization of singing bowl therapies.[1,2,7,8,11]

## Conclusion

In conclusion, Himalayan singing bowl sound meditation can be a cost-effective and simple approach for people who want to relax and reduce stress while improving their spiritual well-being. These therapies have also shown promise in enhancing different health outcomes, but their potential clinical uses need further exploration. Nevertheless, the inadequacy of the present research emphasizes the necessity for more rigorous studies to examine the impacts of singing bowl therapies and to acquire a better understanding of the neurological changes caused by singing bowl vibrations.

## Funding

None.

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