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Indian Classical Music, Raaga as music therapy: scope and opportunities

Varun Malhotra
varun.physiology@aiimsbhopal.edu.in

Samidha Vedabala
svedabala@cus.ac.in

Sagar Khadanga
sagar.genmed@aiimsbhopal.edu.in

Anvesh Jallapally
jallapallyanvesh@gmail.com

Murlimanju BV
Kasturba Medical College, Mangalore, murali.manju@manipal.edu

See next page for additional authors

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Indian Classical Music, Raaga as music therapy: scope and opportunities

Authors

Varun Malhotra, Samidha Vedabala, Sagar Khadanga, Anvesh Jallapally, Murlimanju BV, Saikat Das, and Amit Agrawal

Review Article

Indian Classical Music, Raaga as music therapy: scope and opportunities

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Email: dramitagrawal@gmail.com, dramitagrawal@hotmail.com

Abstract

The existing research on Indian classical music therapy faces several challenges that need attention for the field's growth and credibility. Most studies rely on anecdotal evidence rather than rigorous scientific methodology, necessitating more controlled trials and longitudinal research. The rich diversity of ragas and talas in Indian classical music poses a challenge in standardizing their therapeutic application. Cultural sensitivity is crucial due to the deeply rooted nature of this therapy in Indian culture, and generalizing findings to diverse populations requires careful consideration. Music therapy is gaining recognition worldwide, with universities offering courses ranging from certificates to doctorates. Music therapy is considered a deep-rooted treatment for mental and physical health, with the ability to heal at a fundamental level. Music's therapeutic effects include encouraging socialization, self-expression, and motor development, and it can be both motivating and calming. Ancient Indian traditions like yoga, meditation, and 'raga chikitsa' offer therapies for stress-related physical and psychological ailments. Researchers suggest measuring cortisol levels and endorphins to understand the neuroendocrine effects of music. The research has explored how Indian melodies can influence physiological measures linked to stress, arousal, and anxiety, and revealed that musical modes can induce behavioral and cardiovascular changes in participants. To explore these benefits, consult a qualified music therapist or healthcare professional for tailored guidance. Importantly, music therapy should complement, not replace, conventional medical treatment when necessary. Additionally, studying the duration of music therapy for different diseases is essential for scientific understanding.

Keywords: Music therapy, Emotion, Raga and emotions, Indian music, Melodic scale, Acoustic stimulus, Music.

Introduction

Music has both entertainment value and health benefits and music medicine involves passive

Varun Malhotra¹, Samidha Vedabala², Sagar Khadanga³, Anvesh Jallapally⁴, B V Murlimanju⁵, Saikat Das⁶, Amit Agrawal⁷*

¹ Department of Neurosurgery, All India Institute of Medical Sciences, Saket Nagar, Bhopal 462020, Madhya Pradesh, India.

² Department of Music, Sikkim University, Gangtok, Sikkim, India.

³ Department of Medicine, All India Institute of Medical Sciences, Saket Nagar, Bhopal 462020, Madhya Pradesh, India.

⁴ Department of Biomedical Sciences, Nirvesh Enterprises Private Limited, Hyderabad, India,

⁵ Department of Anatomy, Kasturba Medical College, Mangalore, Manipal Academy of Higher Education, Manipal, Karnataka, India.

⁶ Department of Radiotherapy, All India Institute of Medical Sciences, Saket Nagar, Bhopal 462020, Madhya Pradesh, India.

⁷ Department of Neurosurgery, All India Institute of Medical Sciences, Saket Nagar, Bhopal 462020, Madhya Pradesh, India.

*Corresponding Author

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listening to music, while music therapy involves active music-making [1-5]. Ragas, which are sequences of notes in Indian music, have a profound effect on emotions and mood. Listening to ragas can create specific emotional states [1]. Several studies have explored the impact of Indian ragas and music therapy on various aspects of mental and physical well-being. Indian ragas and music therapy have been studied for their effects on emotions, mental health, cardiovascular parameters, and cognitive performance, demonstrating potential benefits in various aspects of well-being [6-8]. Passive listening to a specific melodic scale of Indian music was studied for its impact on cardiovascular electrophysiological parameters. Music therapy, a field gaining recognition, has the power to positively impact individuals' physical, emotional, and psychological well-being. This review delves into

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the world of music therapy, explaining its principles, methods, and how it enriches lives.

Historical perspective

In Sanskrit, 'raga' translates to "color" or "mood" and is related to musical rules and guidelines, akin to 'rasa' but with specific musical aspects [9]. Music can convey the first seven of the eleven sentiments. Ancient Indian traditions like yoga, meditation, and 'raga chikitsa' offer therapies for stress-related physical and psychological ailments. 'Raga Chikitsa', an ancient manuscript, explores the therapeutic effects of ragas such as darbari Kanada, Khamaj, and Pooriya in alleviating mental tension, especially in cases of hysteria. Raga Malhar soothes anger and mental instability, while Raga Jaijaiwanti has shown effectiveness in treating mental disorders [9]. In Ayurveda, music is considered a form of medicine. Vedic texts refer to the cosmos as "Nadabrahma", where 'nada' means sound and 'Brahma' signifies God, implying that sound is divine [1]. Indian classical ragas are recognized not only for entertainment but also for their ability to improve physical and psychological health. 'Raga Chikitsa' focuses on healing through ragas. Ragas have a substantial impact on mental well-being. Listening to ragas can help regulate blood pressure and heart rate and may affect the sympathetic and vagal systems [10]. The research suggests that just 10 minutes of listening to music can lead to an acute reduction in anxiety and improvements in cardiovascular parameters [11]. Different ragas can have varying effects. For example, Raga Puriya had the most significant reduction in state anxiety scores, while Raga Malkauns reduced state anxiety, increased the mean neural network (NN) interval, and reduced heart rate [6]. According to studies, Indian raga-inspired music can improve mental health, emotions, cognitive performance, and even lower stress, anxiety, and depressive symptoms [10, 12].

Indian Classical Music: Beyond Sound

Our ancient texts have explored swaras and explained the emotional impact of ragas and

their role in improving quality of life and regain health [9, 13-17]. Music therapy is gaining global recognition, however, the importance and scope of music as a rehabilitation tool in Indian colleges still need to be explored further [13, 15, 18]. Ancient texts have long emphasized the health benefits of raga therapy in addressing psychological, neurological disorders, and emotional disturbances. German government-sponsored studies on medical resonance music therapy reveal that music can provide pain relief during surgery, with 58% of patients experiencing relief in minor surgery and a 78.6% reduction in analgesic use after gynecological surgery [17]. The students of a Residential Yoga University were exposed to evening bhajans set to different ragas, which could potentially influence their memory scores [12]. According to a study by a cognitive neuropsychologist, stress is a major cause of diabetes, and music can effectively alleviate stress, which makes it beneficial for managing diabetes [17].

Music and health

The complexity of music therapy generates the need for further research in understanding the specific effects of different musical elements, such as Ragas in Indian Classical Music (ICM), on physical, physiological, and psychological health. However, despite some challenges in the field, music therapy holds promise as an alternative healthcare approach with minimal adverse effects [14]. Music can influence health, particularly in terms of its impact on emotions, cardiovascular health, and overall well-being. Current research emphasizes how different music genres can attract individuals with specific personalities and emphasizes the health benefits of certain genres (i.e., classical and meditation music) and have shown a reduction in blood pressure and heart rate when listening to specific music. Furthermore, it mentions the potential for music therapy as a cost-effective and non-invasive intervention for cardiovascular disease and other health issues [14, 17].

Music therapy

Music therapy serves multiple goals, including (a) enhancing awareness of the mind-body connection by exploring emotions and their impact on daily life; (b) improving mood; (c) alleviating physical discomfort and pain; (d) enhancing cognitive functions such as memory and decision-making; and (e) facilitating non-verbal expression of thoughts, emotions, and feelings [19–22]. Music therapists engage in various activities, including providing interactive music sessions at family events, conducting music-based workshops to educate families, delivering music therapy services on and off military installations, offering discussions to support military personnel and their families, and integrating music therapy into support groups for spouses of actively deployed individuals (Waiting Warriors). Music therapy can be incorporated into support groups for parents of children with special needs, and organizing summer music therapy camps for dependent children with special needs [23]. The impact of music on the human body, noting that music with a tempo of 70–75 beats per minute can have a calming effect, similar to the normal heart rate. Slower rhythms create a sense of uncertainty, while faster rhythms stimulate and revitalize the body. Ragas in Indian classical music are associated with different times of the day and can evoke specific emotions or moods. Music is recognized as a sedative for modern-day stress and high blood pressure. Therapeutic effects of music, particularly in the context of Indian classical music, known as Carnatic music. Music involves organizing tones and sounds to create a harmonious and enduring arrangement [24–26]. In Carnatic music, there is a style called “Raga,” which is used in improvised performances. Kumar [17] explored the therapeutic benefits of Carnatic music, particularly the raga Ananda Bhairavi. This raga was found to reduce blood pressure and also led to a 50% reduction in the need for analgesics in postoperative pain management. Carnatic music, especially the raga Ananda Bhairavi, is used in managing various health conditions, including pain relief and blood pressure reduction. It also suggests that music therapy is still

developing as a health service in India compared to other countries [17].

Table 1 Here are a few ragas that are sometimes associated with health benefits in Indian music therapy:

Raga	Health benefits
Raga Bhairavi	This raga is often considered to have a calming and soothing effect. It is believed to help reduce stress, anxiety, and insomnia. Bhairavi is commonly performed in the early morning or late evening.
Raga Malkauns	Malkauns is thought to have a deep meditative quality. Listening to this raga is believed to help with relaxation and focus. It is often performed at night.
Raga Todi	Raga Todi is associated with cooling and refreshing qualities. It is believed to have a positive impact on mental well-being and can be used to alleviate mood swings.
Raga Yaman	Yaman is considered a joyful and uplifting raga. It is believed to boost mood and promote a sense of well-being. Yaman is typically performed during the daytime.
Raga Darbari	This raga is known for its slow, contemplative nature. It may be used to induce a state of deep relaxation and concentration.
Raga Ahir Bhairav	Ahir Bhairav is believed to have a healing quality, particularly for ailments related to the respiratory system. It is also considered to promote mental clarity.
Raga Madhyamavati	Madhyamavati is associated with tranquility and emotional balance. It may be used to reduce stress and anxiety.

Emotions and Ragas

The unique characteristics of Indian classical music, particularly the concept of ragas and their association with specific moods and times of the day. It mentions that each raga is defined by its pitch collection and characteristic phrase, and they are associated with particular emotions. The 11 basic moods in North Indian Classical Music are listed as: karuna, shringar, shanta, veer, raudra, vyragya, bhakti, bhayanak, hasya, bibhatsa, and adbhuta. Each raga or ragini is linked to a specific mood or

sentiment that resonates with human emotions. Ancient musicologists studied the effects of musical notes on human behavior and emotions, which contributed to the development of the time theory in Indian classical music [9]. Further, the practice of performing ragas at specific times of the day or night, believing that this enhances the melodic beauty of the raga. Some ragas are associated with seasons, and seasonal ragas can be performed at any time during their respective seasons. This timing of ragas is based on the daily cycle of changes in human moods and emotions.

Raga Chikitsa

The significance of ragas in Indian classical music, particularly in Hindustani and Carnatic traditions. Ragas are musical compositions that are believed to have therapeutic and health benefits, although these claims are often based on anecdotal evidence and traditional beliefs, with limited scientific research to support them. Indian classical music and raga therapy, such as the seven basic notes, the importance of selecting the right raga, and the role of therapists in tailoring music therapy to individual patients. Some ragas are said to be effective when sung at specific times of the day, according to Ayurveda. Music therapy using ragas has shown positive results in pain management and the treatment of psychological, emotional, and neurological disorders [15].

Selecting the right music

Music is considered a universal language that is composed of specific note combinations in a particular order [16, 21], with the potential to influence various health-related parameters including the physical, physiological, and emotional well-being of an individual [17, 27]. For example, Indian classical music, particularly the raga Ahir Bhairav, has shown therapeutic potential in addressing depression, anxiety, and stress among adults. A pilot study involving 20 participants divided into intervention and control groups demonstrated that the intervention group, which received raga therapy in addition to standard care (pharmacology and counseling), experienced a significant reduction in depression, anxiety, and stress levels. This suggests

that raga therapy is a cost-effective, non-invasive, and safe adjunct for alleviating these mental health concerns [1]. A study conducted on young, healthy individuals evaluated the impact of a Hindustani raga on electrophysiological parameters such as blood pressure (BP) and heart rate variability (HRV). The results indicated that passive listening to the raga Bhimpalas led to a mild arousal response during the intervention, which returned to baseline levels after the music stopped. This response was attributed to the unique intervals in the scale and the listeners' attention to the unfamiliar stimulus. Future studies should explore the physiological responses to different music genres and scales after familiarization with the stimuli [11].

Music and brain

The use of EEG (Electroencephalography) to study brain responses to stimuli and tasks, as well as the classification and benefits of different brainwave frequencies [27, 28]. These waves and frequencies serve different purposes and offer various psychological and health benefits. EEG is used by researchers to compare brain responses in various situations [27, 28]. EEG rhythms are categorized into four types: delta (1/2-4 cycles per second), theta (4-7 cycles per second), alpha (8-13 cycles per second), and beta (13-40 cycles per second) [27, 28]. The effects of pleasant and unpleasant music on alpha power in different frontal lobes, with pleasant music decreasing alpha power on the left and unpleasant music decreasing it on the right. It also highlights that listening to music increases theta and alpha power in the EEG. The benefits of alpha brainwaves (7 to 14 Hz), include synchronization of brain hemispheres, improved dream recall, increased creativity, enhanced memory retention, and various health benefits like reduced anxiety and stress [27, 28]. Theta brainwaves (3.5 to 7 Hz) are associated with inner peace, emotional stability, deep relaxation, improved physical healing, better sleep quality, and the release of beneficial hormones. Delta brainwaves (0.1 to 3.5 Hz) are linked with deep relaxation, profound healing, spiritual connection, and subconscious mind engagement [27, 28].

Music and Cardiovascular Diseases

Several studies have examined the effects of music on various medical conditions and physiological parameters. Music, including compositions by Bach and Mozart, has been found to have beneficial effects in diverse healthcare settings, such as cardiac catheterization, cardiac surgery, rehabilitation, intensive care medicine, geriatrics, neurological diseases, and depressive syndromes [17]. It is worth noting that music's impact on physiological parameters makes it an important therapeutic option for these patients. The structure of a piece of music has a consistent dynamic influence on cardiovascular and respiratory responses, which correlate with musical profiles [17]. A specific Indian music melodic scale, raga Bhimpalas, has been found to produce unique cardiovascular effects, leading to a mild arousal response during passive listening [11]. Passive listening to the melodic scale of the raga Bhimpalas, has been shown to modify cardiovascular electrophysiological responses, which have been attributed to a combination of major and minor intervals [6, 7].

Conclusion

Listening to or playing Indian classic music is widely practiced to influence the health and well-being of individuals. Various components of music, including notes and tone variations, pitch, tempo, and dynamics, have been analysed and proposed to positively influence health and health-related conditions. Despite the fact that music is used as a method of healing in India, there appears to be a significant lack of scientific understanding to explain how Indian classic music can be used to achieve health outcomes. There is a need to conduct well-designed research to better understand the scope and opportunities to explore the health and well-being benefits of traditional music, so the music can be used as a complement (not a replacement) to modern medical management strategies when necessary.

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