

India's rich musical heritage has a lot to offer to modern psychiatry

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ABSTRACT

Music with its instantaneous pleasing effect can be an answer to misery. It is a form of art that is easily accessible anytime and anywhere. This article gives an overview of music therapy practiced in ancient India, its influence on emotion and mind, and speculates its possible clinical applications in the modern era based on the available scientific literature.

Key words: Music therapy, *Nada Yoga*, *Raga Chikitsa*

INTRODUCTION

Decades have passed by but human suffering has remained a constant through the ages. Music has the power to quench mental anguish, and it is that form of art, which is very easily accessible and has instantaneous effects on one's mind. It is of interest to note that every element in this universe originates from a sound vibration; hence it is no wonder that music can harness nature – from blossoms, trees and animals to the human mind.^[1,2] And, of course, the nature too reciprocates by producing musical notes. The *swaras* (notes) *Sa, Ma, Pa* of the Indian classical system are compared to the sounds produced by peacock, cuckoo and heron respectively.^[3] Music cleanses the person from within and helps mind achieve new potential giving new dimensions to meaning of life. Although, music therapy is not very widely practiced clinically, its healing effects have been known to mankind since time immemorial. Can its lost lustre be revived?

HISTORICAL BACKGROUND: ORIGINS OF MUSIC THERAPY

From very ancient times philosophers like Plato and Confucius have laid emphasis on the need for musical training for statesmen.^[3] Ancient Greeks, Arabs, and Indians were well aware of the healing property of music, and there are legends

confirming the same.^[4] Hippocratic tradition laid emphasis on applying natural methods of healing in medical practice.^[5] The first to use music's therapeutic effects to conquer "passion" was Asclepius.^[6] Ancient Hindus believed that suffering caused by man's uncontrolled thinking could be handled by music therapy.^[7] In India, literature on science of music (*Gandharva tattva*) dates back to fourth century B.C.^[3] "*Raga Chikitsa*," one of the ancient texts elaborates on the therapeutic role of musical melodies.^[8] Swami Haridas, a classical musician who lived in the 16th century, was one of the many who used music in treating illnesses during olden times.^[3,9] A 17th century work titled "*Sangita Sudha*" authored by Nayaka King Raghunatha Nayak and his minister Govinda Dikshitar gives an account of effects of music on emotions. Ancient works collected by King Sahaji (1684–1711) that have been preserved in the Thanjavur Saraswati Mahal Library in the form of palm leaf manuscripts serve as a record of remedial use of music in psychological ailments.^[8] The resilience of character of ancient people as observed by Indian historians can probably be attributed to the musical practices of olden days.^[10]

NADA YOGA AND RAGA CHIKITSA

Nada Yoga and Raga Chikitsa form the backbone of ancient system of music therapy,^[11] which is highly spiritual and enriched with everlasting energy content.^[10]

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Nada Yoga

According to the system of *Nada Yoga* universe has taken its origin from a sound projection.^[12] *Nada* (intonation) can be physical (*ahata*) or in its sublime form in the subtle domains of the mind (*anahata*).^[11] *Na* refers to *prana* and *da* refers to fire. Sarngadeva elaborated on how *Nada* is generated.^[3] In Indian philosophical practice, sound is intrinsically related to consciousness, and the term “*Nada*” may also imply “flow of consciousness.” The system focuses on developing a spontaneous interaction between sound and consciousness.^[11] The four levels of consciousness – transcendental, deep sleep, dream-like and wakeful states correspond to four levels of sound *para*, *pashyanti*, *madhyama* and *vaikhari* respectively.^[12,13] *Nada* yogic exercises address the *chakras* (energy-centers) of the human body by means of natural sound vibrations in the breath and also certain frequencies produced by musical instruments. The practice intends to synchronize *chakrasthanas* (location of chakras) with *swarasthanas* (locations of musical notes). *Nada Yoga* encompasses various forms of practices ranging from chanting in praise of the divine (*Nada Sankirtan*) to purification of energy channels (*Nadi Shuddhi*).^[11] These diverse practices provide us with multiple options to formulate a suitable treatment plan to cater to patient’s needs at every stage.

Raga Chikitsa, the raga-cure

Raga is a unique set of selected notes. It provides immense creative potential for improvisation.^[11] A given *raga* can have various effects. Ragas have certain specific *rasas*, which impress the listeners irrespective of the lyrics. The *rasa* of a *raga* may change with the shift in emphasis on notes thus producing multiple effects for a given *raga*. The emotional effect of *raga* is determined by the frequencies of the notes that form the tune and on its *jiva swaras* (index to the *rasa* of a *raga*) and *nyasa swaras*.^[14] “*Bhava*” the emotion conveyed is considered as the essence of music, which instills life to the *raga* scale. Indian ragas are, therefore, suitable for emotional healing in conditions such as anxiety and stress.^[8]

Ragas have an innate quality of impressing upon the listener a specific emotion. For instance despite joyful lyrics set to innately woeful Punnagavarali or Ahiri ragas, the plaintive quality still haunts the listeners. Likewise, mournful lyrics may be set to innately bright and catchy Bilahari *raga* yet the pathetic words leave the listener untouched. This phenomenon also explains the valorous nature of martial music infusing enthusiasm and courage in soldiers.^[14]

MUSIC AND EMOTION

The underlying principle of cognitive behavior therapy is that cognitions affect emotion, which in turn modulates the behavior of an individual. Music is the language of emotion,^[3] and no art arouses emotions so deeply as music.^[14] *Rasanubhava*, an experience through music has a

psychological basis. The concept of “*rasa*” (essence) forms one of the fundamental concepts of Indian esthetics. Permanent esthetic moods also called “*sthayibhavas*” are *rati* (love), *hasa* (laughter), *soka* (pathos), *krodha* (anger), *utsaha* (enthusiasm), *bhayam* (fear), *jugupsa* (disgust) and *vismaya* (wonder) and their corresponding *rasas* are *sringara*, *hasya*, *karuna*, *raudra*, *vira*, *bhayanaka*, *bibhatsa* and *adbhuta* respectively.^[14] These eight “*rasas*” are also referred to as eight basic emotions and are known to have relation with seven basic notes of music.^[15]

Sage Matanga, father of the modern *raga paddhati* developed on the already existing *raga alapana* also known as *raga vistara*, which means exposition of a *raga*.^[16] This extemporization is highly intuitive and regulates emotional flow in a pleasing way.^[8] He was also the first to use the word “*gamaka*,” which refers to manipulation of note in any manner to produce a musical effect.^[16] These delicate vibrations adorn the musical note and produce an emotional effect called *Raga Bhava*.^[17] Narada and Sarangdeva in their respective works *Sangita Makaranda* and *Sangita Ratnakara* gave a detailed account of different types of *gamakas*.^[16] While *gamakas* add to esthetic beauty of music, it can also be used to console grieving hearts. During ancient days in Tamil Nadu, “*oppari*” sung in the event of death of a person used *gamakas* in excess to relieve the suppressed emotions of the survivors of the deceased.^[17] Through music, negative emotions can be relieved by catharsis.^[8] Aristotle too claimed that religious melodies can have effects similar to catharsis in some individuals.^[18]

MUSIC AND MIND

Mind and consciousness constitute the subtle nonphysical and un-manifested elements of the body and are given as much importance as gross physical body.^[11] Expressive music activities enhance the positive self-image and improve coping skills.^[4] Singing is a unique exercise wherein concentration, meditation, and breathing exercises take place unconsciously and simultaneously.^[19] Just as there is fantasy music for relaxation, movement music to get one out of depression, there is resolution music that induces confidence.^[10] Universal phenomenon of babies falling asleep to melodious lullabies is a proof of effects of music on the human mind. And it is the gentle calming effect that puts them to sleep and not the words; for babies do not comprehend lyrics.^[14]

Ragas with specific effects on mind

Regular exposure to a specific *raga* under particular conditions has clearly identified effects. While Nilambari *raga* can induce sleep, ragas Bhupala and Malayamarutam when played before dawn serve as a pleasing invitation for people to get up from sleep. Bilahari, a joy-producing *raga* helps to alleviate melancholic mood and Sama *raga* can reduce anxiety.^[14]

MUSIC IN HEALTH AND DISEASE

Music has a calming effect on listener's mind and healing effects in various psychiatric ailments. It has been used to relieve depression as a therapy by itself and also in combination with guided imagery.^[4] Music has the power to regulate mood.^[20] Soothing and organizational properties of music benefit intellectually disabled. In addition, it also provides creative opportunities for self-expression.^[4] Drumming can cause relaxation and is of use in patients with substance use disorders.^[21] Music has multiple health benefits in various conditions in all age groups.^[22] It can provide solace, reduce anxiety and depression and improve tolerance to pain. A combination of imagery, touch therapy, and music therapy has been tried in palliative care.^[4]

Besides its therapeutic effects, the most exciting aspect of music is that it helps to improve general wellbeing and quality of life.^[22] The raga Madhyamavati can create calmness in listener's mind. Music combined with movement as in aerobic exercises or gym sessions improves physical capabilities.^[4] A person trained in singing puts his voice to better use too. While the compass of speech in regular conversations is usually within zero to half an octave, that of a cultivated voice is up to two and a half octaves.^[14] Singing also helps in maintaining healthy lungs.^[3]

SCIENTIFIC EVIDENCE

Studies on Indian classical music are limited, and most of the evidence for effects of music on emotion, mind, neural circuitry and its other health benefits comes from clinical trials done abroad. Research to elucidate the mechanisms underlying its effects and use in various clinical conditions are underway.

Nada Yoga and Raga Chikitsa

Law of vibration states that everything in this universe constantly vibrates,^[23] which is in consonance with philosophy of *Nada Yoga*.^[12,24] Regular practice of *Nada Yoga* increased alpha rhythm on electroencephalography and also improved general well-being of the subjects.^[25] It is also effective in reducing stress.^[26] Carnatic musical training has a significant impact on auditory temporal resolution.^[27] A study showed that Raga Desi Todi significantly reduced scores on depression and anxiety.^[28]

Music and emotion

Basic emotions in vocal communication can be identified across different cultures.^[29] Likewise, emotions expressed in music can be basic emotions that are cross-culturally similar,^[30,31] and complex emotions.^[31] Research on effects of music on emotion has revealed that music generates two types of emotion – that which is experienced and vicarious emotion. Listening to music that is perceived as sad evokes pleasant emotions in the listener.^[32] The mechanisms

underlying emotion induction are multiple and beyond cognitive appraisal.^[33]

Music and mind

There is evidence to suggest that listening to music can result in transient improvement in spatial-temporal reasoning performance. Although this effect has been studied using Mozart's music and few other compositions, the characteristics of music to produce this effect have not been delineated.^[34] Moderate amount of musical training causes appreciable neural enhancement,^[35] and practice of music can also modulate functional connectivity at rest.^[36]

Music in health and disease

- Music has been shown to have a positive impact on health.^[37]
- Music seems to have beyond a cathartic effect. It has been found to alleviate depression by providing new esthetic, physical and relational experiences for the patients.^[38]
- It can enhance communication and expressive skills, and when used adequately as an adjunct can improve negative symptoms and social functioning in patients suffering from schizophrenia and related disorders.^[39]
- Unique needs of women and adolescents suffering from substance use disorders can be met by music therapy.^[40]
- Initial findings suggest a positive role of music therapy in high-functioning adolescents with neurodevelopmental delay.^[41]
- Music therapy for parents who have a child with disability improves parental mental health and promotes positive parenting.^[42]
- Developmental music groups have a positive impact on social behavior of premature and full term infants.^[43]
- Music can be perceived by individuals who are deaf by virtue of its visual and vibrotactile modalities.^[44]
- Musical training can counteract age-related cognitive decline.^[45]
- Listening to music daily in the 1st month after stroke leads to structural changes in the frontolimbic region,^[46] and these changes were associated with enhanced cognitive and emotional recovery.^[47]
- Music-based cognitive remediation improves executive functions in patients with traumatic brain injury.^[48]
- Music is effective in alleviating chronic pain,^[49] and is of use in palliative care.^[50]
- Music can cause a sense of subjective well-being and have a positive impact on cognitive function, mood, and quality of life of older adults.^[51]

CONCLUSION

Not only in disease but listening to the right kind of music brings out the best in a normal individual, helping him reach his fullest potential. Hence, it is as fundamental a need as food, air and water to human life as it adds new

meaning to life. Its therapeutic effects can be used in people suffering from insomnia, depression, anxiety, substance use disorders, developmental delays, and other childhood psychiatric conditions. Scope of music therapy is undeniably bright; however, efforts must go into popularizing it by emphasizing the scientific basis of its benefits, which can be established by more clinical trials in this area. More research using classical and traditional genres of music from India is needed.

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