



## Role of Music as a Therapeutic Measure in Women's Health

Anagha Sivanandan <sup>1</sup> 

1.Ph.D. Scholar, Dept. of Prasutitantra & Streeroga, Institute of Teaching and Research in Ayurveda(ITRA),Jamnagar.

### Article Info

#### Article history:

Received on: 20-08-2022

Accepted on: 18-10-2022

Available online: 31-10-2022

#### Corresponding author-

Anagha Sivanandan, Lakshmi Bhavan, Chemmad Tirurangadi P.O-676306 Malappuram Dist., Kerala..

#### Email:

[anaghasivanandan1@gmail.com](mailto:anaghasivanandan1@gmail.com)

### ABSTRACT:

**Background:** Music is such an art form that conveys emotions and perceptions even without using a language. The research activities focusing on the effects of art forms on health and well-being has been evidently increasing over the past two decades. Music therapy is a widely accepted and popular form for improving health through arts. Studies have shown that women being more sensitive and sentimental can be influenced more easily by music.

**Materials and Methods:** Review of relevant literature from modern medical science, Ayurvedic classics, text books of Indian Musicology, previous research works, articles published in peer reviewed journals and other genuine sources of internet.

**Results:** Music plays a significant role in improving the health and wellbeing of a female both in preventive and therapeutic aspects.

**Discussion:** Music being the product of *Akasha* and *Vayu Mahabhuta* is capable of controlling the bodily *Vata Dosh*. Ayurveda consider music as a means to tackle *Pitta Dosh* mainly. Previous research works have shown the effect of Indian classical music on gastric and allied secretions in digestive system where there is a major role for *Pitta Dosh*. The coordinated activity of Hypothalamo- Pituitary- Ovarian Axis (HPO Axis) is responsible for normal menstrual and reproductive mechanism in females where *Vata* and *Pitta* are having the main roles. So music can play an appreciable role in maintaining the normal functions in HPO axis.

**Keywords:** Music therapy, Women's health, *Ayurveda*, Indian classical Music

## INTRODUCTION

The concise Oxford Dictionary defines music as “the art of combining vocal or instrumental sounds (or both) to produce beauty of form, harmony and expression of emotions”.

“Sound” is mentioned in Indian philosophy as “*Nada*” and it has been further divided into two forms called “*Anahata nada*”(the one which is produced by its own) and “*Ahata nada*” which is produced due to an impact. The *Anahata nada* is considered as the supreme and divine energy of universe. The other forms of sounds produced by various means can be grouped into *Ahata nada*. But, the “voice”

which is created by an impact of *Vayu (Prana)* and *Agni* is considered as the most important form of *Ahata nada*.<sup>1</sup> Among the different manifestations of the sound, the form which is highly appreciated and pleasurable is known as music. Text books of Indian musicology defines music (*Sangita*) as a combination of three forms- ie, *Gitam*(singing), *Vadyam*(playing musical instruments) and *Nrutyam*(dancing)<sup>2</sup>. These three domines of music are found to be helpful in preservation of health both in preventive as well as therapeutic aspects in modern era. The scoping review of the role of the arts in improving



health and well-being published by the World Health Organization (Fancourt and Finn, 2019) categorizes music for promoting health and well-being into eight domains, which includes receptive music listening, intentional music listening, sharing music (live, recorded), solo or group instrument playing, group singing, music and movement(dance), lyrics(rapping) and song writing/composition/improvisation.<sup>3</sup>

Women being more sensitive and sentimental can be influenced more easily by music. A recent study suggested that preferred music can increase pain tolerance more effectively in females than in males.<sup>4</sup> Similarly, there are numerous research activities going on worldwide regarding the utilization of music as a non-pharmacological intervention to promote the health and wellbeing. This article is an attempt to review and analyze the effect of music in female physiology and pathology and its role in preservation of women’s health. It also aims to find out the scope of therapeutic application of music in the management of menopausal syndrome.

#### **Music as a therapeutic tool in Ancient Indian literature**

Ancient Indian literature consider music as the reflection of the supreme sound (*Nada brahma*). Chanting of *Mantras* was prevalent from Vedic era. Besides the religious and spiritual aspects, the chanting of Mantra can be considered as a part of psychotherapy in various conditions.

As per Indian philosophical and metaphysical theories, *Shabda*(sound) was attributed to the *Guna*(property) of *Akasha Mahabhuta*(space) and its production was said to be due to the movement of *Vayu Mahabhuta*(air) through it. So, the production and propagation of sound is attributed to the *Shabda guna* of *Akasha* and *Gati guna* of *Vayu*. *Apratighatva* (non-hinderance) and *Chalatva* (movement) are the inherent qualities of *Akasha* and *Vayu Mahabhuta* respectively<sup>5</sup>. It can be correlated with the modern theory of production of sound by vibrations and its audibility while attaining a specific frequency.

As per Ayurveda, both *Akasha* and *Vayu Mahabhuta* in their subtle form are found in every tissue and their presence is found in all kinds of actions in body. The bodily abode of *Akasha Mahabhuta* is *Srotrendriya*(auditory faculty) and that of *Vayu Mahabhuta* is *Sparshanendriya* (tactile faculty). So, affinity of sound towards *Karna*(ear) is well understood, but the *Twak*(skin) also have the affinity towards these two *Mahabhuta* which indicate that soundwaves can enter and produce the effects in the body even without the help of the auditory pathway.

In Indian text books of musicology, the basic seven notes of music and their variations are said to be having specific

emerging parts in our body. And, their relationship with the body humors- called *Tridosha*(*Vata*, *Pitta*, *Kapha*) which are the fundamental principles of Ayurveda is also mentioned in ancient Indian literature.<sup>6</sup>

As per the theories of Indian classical music, different permutations and combinations of the basic notes give rise to different types of *Raga*. These *Ragas* can induce different kinds of emotions in the creatures. The appropriate time for singing or playing a particular *Raga*, and the diurnal cycle of *Ragas* were mentioned in the text books of Indian classical music. This indicates the time period during which a *Raga* can be used to create its maximum influence in a person. This concept of diurnal cycle of *Ragas* goes hand in hand with the theory of diurnal cycle of *Tridosha* mentioned in Ayurvedic classics.

The element of rhythm(*Tala*) in music is also having a great role in creating a particular emotion. The relationship between a particular rhythm pattern and its tempo in the production of a specific aesthetic taste was also mentioned in the Indian text books of musicology.<sup>7</sup>

The “Shadchakra” in the human body as per the Yoga philosophy and the references regarding the relationship between the particular musical notes with them and some particular *Ragas* of Indian classical music for stimulating particular chakra are also available in ancient literature.<sup>8</sup>

In classical text books of Ayurveda, music is mentioned as one among the treatment modalities for tackling pitta dosha in particular.<sup>9</sup> The facilities for listening music is mentioned as one among the basic requirements in a hospital set-up.<sup>10</sup> The utility of music as a non-pharmacological intervention is mentioned in Ayurvedic classics in conditions like *Jwara*(fever), *Raktapitta* (bleeding disorders), *Rajyakshma* (chronic debilitating conditions)<sup>11</sup>, *Trushna* (morbid thirst), *Madatyaya* (intoxication)<sup>12</sup>, *Vatashonita* (extremely painful conditions) etc.

#### **Music for promoting Women’s Health**

Women are supposed to maintain a natural dominancy of pitta especially in maintaining their reproductive health. So, disorders of pitta can affect the female in a major degree even though *Vata* and *Kapha* has their own role in female physiology. But no direct references are found in Ayurvedic classics stating the utility of music in preservation of women’s health. The use of *Priya shabda* (pleasant voice/music) was mentioned in Ayurvedic antenatal care for promoting fetal growth and development as well as maternal wellbeing. The importance of positive auditory stimulus to the pregnant women for promoting the psychological and cognitive development of fetus is

emphasized in Ayurvedic classics.<sup>13</sup> Facilities of listening music and musical instruments in *Sutikagara* (during labour and post natal care) is also mentioned.<sup>14</sup> Particular Mantras are also mentioned for facilitating easy labour and as a treatment for obstructed or difficult labour.<sup>15</sup>

In current scenario, music interventions are widely used in antenatal, intrapartum as well as post-natal care. Music listening has been studied as an intervention to help reduce anxiety in pregnant women, particularly in terms of the stress related to baby care, changing family relationships and to maternal role identification.<sup>16</sup> Studies have examined the effects of music therapy on anxiety, stress and maternal-fetal attachment in pregnant women during diagnostic procedures like transvaginal ultrasound.<sup>17</sup> Research have also shown that prenatal music exposure to mother significantly and favorably influences neonatal behaviour.<sup>18</sup> Current studies recommend the use of bedside musical care during pregnancy, childbirth, and in neonatal care.<sup>19</sup> Some research works related to the use of Indian classical music in Ayurvedic antenatal care, conducted as part of post graduate studies in Ayurveda in different universities of India showed the positive impact of melodies composed in certain Ragas of Indian classical music on both maternal and fetal wellbeing.<sup>20</sup> Indian classical music and creative visualization showed positive effects on maternal psychology, physiology and the cognitive development of the foetus.<sup>21</sup>

Listening to music during labor showed a positive impact on labor pain and anxiety, maternal-fetal parameters and analgesic requirement.<sup>22</sup> Music therapy in the form of culture-based chants has been studied and proven to reduce labour pain perception and to provide a positive childbirth experience.<sup>23</sup>

Clinical research recommends music therapy as a nonpharmacological method for postpartum well-being as it decreases postpartum anxiety and pain, increases the satisfaction with childbirth and reduces the early postpartum depression rate.<sup>24</sup> Specific clinical trials on patients with postpartum depression suggested that clinical implementation of music therapy during postpartum period could be an effective non pharmacological intervention in reducing depression.<sup>25</sup>

In gynecological disorders also music therapy has greater scope in life style customization and stress management in conditions like PCOS, infertility etc. It can be used to minimize the anxiety induced pain during gynecological office procedures like hysteroscopy or colposcopy<sup>26</sup> and other diagnostic techniques like ultrasonography, hysterosalpingography<sup>27</sup> etc. Instrumental music based of

specific ragas of Indian classical music showed appreciable results in reduction of pain in young students with dysmenorrhea<sup>28</sup>. Recent studies indicate that listening to music can reduce the intensity of symptoms of menopause and depression levels in postmenopausal women<sup>29</sup>.

Currently, the effect of music on hormonal secretions especially on steroidal hormones are also being researched with genetic aspects.<sup>30</sup>

## DISCUSSION

The coordinated activity of Hypothalamo- Pituitary-Ovarian Axis (HPO Axis) is responsible for normal menstrual and reproductive mechanism in females. It can be correlated with the action of *Vayu* in different form in different levels. The functions of *Pranavayu* which is the central regulator can be attributed to the Hypothalamic level, the function of *Udana vayu* in pituitary level and the functions of *Samana Vayu* in ovarian level. The hormones produced by the endocrinal glands and released into the blood are the regulators of different metabolic pathways in our body. These are considered as the category called "*Agni*" in Ayurveda. So, the hormones regulating the menstrual physiology can be understood as different forms of *Agni* in different levels of tissue metabolism. A previous experimental study on the effect of Indian classical music on gastric and allied secretions in the digestive system has shown the positive impact of music on endocrinal secretions also.<sup>[31]</sup> Based on this principle, the positive impact of music on HPO Axis was hypothesized.

## CONCLUSION

Therapeutic utility of music has been well recognized since the Vedic period in India. Currently, the research activities focusing on the effects of art forms like music in preservation of health is an emerging field. In case of women's health, majority of the scientific research works published regarding music are focused on the antenatal, intra partum and post-natal care only. In gynaecological disorders also, music can be used as a simple, easy and cost effective non pharmacological intervention in life style customization and stress management leading to proper balance of hormones by regulation of HPO Axis which is yet to be more validated scientifically.

**Acknowledgements** - I wish to extend my special thanks to Prof. Laxmipriya Dei, my guide as well as Prof. Arpan A. Bhatt, my co-guide in PhD research for their constant support and encouragement for writing this article.

**Conflict of interest - None**

**Source of finance & support – Nil**

## ORCID

Anagha Sivanandan , <https://orcid.org/0000-0002-1839-2693>

## REFERENCES

1. Jugnu S, Ahobala's Sangita Parijata, Shloka no:36, edition 2018, Varanasi, Chaukhambha Krishnadas Academy.
2. Shringy R.K, Shargadeva's Sangita Ratnakara, Vol 1, verse 21, First Edition, Varanasi, published by Motilalbanarsidass Indological publishers.1978
3. Dingle et al, Music Activities, Health and Well-Being, Frontiers in Psychology, Volume 12, September 2021, Article 713818
4. Ghaffaripour S, A. Music can effectively reduce pain perception in women rather than men. Pak J Med Sci 2013;29(1):128-131. doi: <http://dx.doi.org/10.12669/pjms.291.2947>
5. Sharma R.K, Chakrapani, Charaka Samhita of Agnivesha, Sharira Sthana. Chapter 1, Ver.29, Edition:Reprint. Varanasi, Chaukhamba Sanskrit Series. 2003.pp.318
6. Ghaffaripour S, Sangita Sagara, Varanasi, published by Motilal banarsidass Indological publishers.1978.pp.130-133
7. Hathras S, Sangita Visharada ,7<sup>th</sup> edition published by sangeet Karyalaya, Hathras, E-book source: Indira Gandhi National Centre for the Arts, New Delhi. 1968.pp.234
8. Nalappatt S, Nadalayasindhu-Ragachikitsamrutam, Malayalam language, Part 2, chapter 16-21 D C Books Publication, 2008.pp.313-320
9. Sharma R.K, Chakrapani, Charaka Samhita of Agnivesha, English translation Vimana Sthana. Chapter 6, Ver.17, Edition:Reprint Varanasi, Chaukhamba Sanskrit Series.2003.pp.193.
10. Sharma R.K, Chakrapani, Charaka Samhita of Agnivesha, English translation Sutra Sthana. Chapter 15, Ver.7, Edition: Reprint.Varanasi, Chaukhamba Sanskrit Series. 2008.pp.289.
11. Sharma R.K, Chakrapani, Charaka Samhita of Agnivesha, English translation Chikitsa Sthana.Chapter 8, Ver.186, Edition:Reprint Varanasi, Chaukhamba Sanskrit Series.2009.pp.403.
12. Sharma R.K, Chakrapani, Charaka Samhita of Agnivesha, English translation Chikitsa Sthana. Chapter 24, Ver.42, Edition: Reprint .Varanasi, Chaukhamba Sanskrit Series.2009.pp.394.
13. Murthy K.R, Vagbhata, Ashtanga Sangraha, English translation Sharira Sthana Chapter 1, verse 38, Fifth Edition,Varanasi, Chaukhambha Orientalia,2005.pp.15.
14. Sharma R.K, Chakrapani, Charaka Samhita of Agnivesha, English translation Sharira Sthana. Chapter 8, Ver.47, Edition:Reprint.Varanasi, Chaukhamba Sanskrit Series.2003.pp.500-501.
15. Sharma R.K, Chakrapani, Charaka Samhita of Agnivesha, English translation Sharira Sthana. Chapter 8, Ver.39, Edition:Reprint . Varanasi, Chaukhamba Sanskrit Series.2003.pp.494.
16. Chang HC, Yu CH, Chen SY, Chen CH. The effects of music listening on psychosocial stress and maternal-fetal attachment during pregnancy. Complement Ther Med. 2015 Aug;23(4):509-15. doi: 10.1016/j.ctim.2015.05.002. Epub 2015 May 27. PMID: 26275644.
17. Shin HS, Kim JH. Music Therapy on Anxiety, Stress and Maternal-fetal Attachment in Pregnant Women During Transvaginal Ultrasound. Asian Nurs Res (Korean Soc Nurs Sci). 2011 Mar;5(1):19-27. doi: 10.1016/S1976-1317(11)60010-8. Epub 2011 Apr 5. PMID: 25029946.
18. Arya, R., Chansoria, M., Konanki, R., & Tiwari, D. K. (2012). Maternal Music Exposure during Pregnancy Influences Neonatal Behaviour: An Open-Label Randomized Controlled Trial. International journal of pediatrics, 2012, 901812. <https://doi.org/10.1155/2012/901812>.
19. Olson SL. Bedside musical care: applications in pregnancy, childbirth, and neonatal care. J Obstet Gynecol Neonatal Nurs. 1998 Sep-Oct;27(5):569-75. doi: 10.1111/j.1552-6909.1998.tb02624.x. PMID: 9773369.
20. Krishna D, Influence of kalyani raga on fetus and pregnant women, Ancient Science of Life. 2013 Jan;32(Suppl 2):S16-S16. PMID: PMC4147484.
21. Mauli V: Clinical Evaluation Of Effect Of Music With Creative Visualization On Foetal Growth And Maternal Physiology With Special Reference To E.C.G, International Ayurvedic Medical Journal, ISSN: 2320 5091, August, 2017, 5(8).
22. Simavli S. Effect of music on labor pain relief, anxiety level and postpartum analgesic requirement: a randomized controlled clinical trial. Gynecol Obstet Invest. 2014;78(4):244-50. doi: 10.1159/000365085. Epub 2014 Sep 16. PMID: 25227477.
23. Bhuvanewari R et al, Music therapy on labour pain during the latent stage of labour in primigravidae mothers, SBV Journal of Basic ,Clinical and Applied Health Science, 2018 January, Volume 2, issue 1.

24. Simavli S, Kaygusuz I, Gumus I, Usluogulları B, Yildirim M, Kafali H. Effect of music therapy during vaginal delivery on postpartum pain relief and mental health. *J Affect Disord.* 2014 Mar;156:194-9. doi: 10.1016/j.jad.2013.12.027. Epub 2013 Dec 28. PMID: 24411681.
25. Angel G, Sheela.R, "Effects of Music on Postnatal Depression among Postnatal Mothers", *International Journal of Science and Research (IJSR)*, [https://www.ijsr.net/get\\_abstract.php?paper\\_id=SUB154234](https://www.ijsr.net/get_abstract.php?paper_id=SUB154234), Volume 4 Issue 5, May 2015, 581 - 584, #ijsrnet
26. Mak N., Reinders, I.M.A., Sloekers, S.A. et al. The effect of music in gynaecological office procedures on pain, anxiety and satisfaction: a randomized controlled trial. *Gynecol Surg* 14, 14 (2017). <https://doi.org/10.1186/s10397-017-1016-2>
27. Agwu K.K, The effect of music on the anxiety levels of patients undergoing hysterosalpingography, *Radiography*, Volume 13, Issue 2,2007,Pages 122-125,ISSN 1078-8174,<https://doi.org/10.1016/j.radi.2005.12.002>.
28. Kushalappa J et al, Effect of music therapy in dysmenorrhic subjects during menstrual phase of menstrual cycle, *International journal of biomedical research*, December 2014, Corpus ID: 70431852, DOI:10.7439/IJBR.V5I12.822.
29. Derya Y PhD<sup>1</sup>; Varişoğlu, Yeliz PhD<sup>2</sup>. The effect of music therapy on menopausal symptoms and depression: a randomized-controlled study. *Menopause: May 2022 - Volume 29 - Issue 5 - p 545-552* doi: 10.1097/GME.0000000000001941
30. Fukui H., (2013). Influence of music on steroid hormones and the relationship between receptor polymorphisms and musical ability: a pilot study. *Frontiers in psychology*, 4, 910. <https://doi.org/10.3389/fpsyg.2013.00910>
31. Bhatt A, et al, Ph.D. Thesis, Year 1995, Department of Maulika Sindhanta, Institute for postgraduate teaching and research in Ayurveda, Gujarat Ayurved University, Jamnagar.

**How to cite this article:** Sivanandan A, "Role Of Music As A Therapeutic Measure In Women's Health" *IRJAY*. [online]2022;5(10); 125-129. Available from: <https://irjay.com> DOI link- <https://doi.org/10.47223/IRJAY.2022.51020>