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Chakra Meditation Music as a Therapeutic Intervention for Prehypertension: A Study on Mental, Cognitive, and Physiological Parameters in Adults Aged 30–40

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Abstract

Hypertension and prehypertension have been widely recognized as the main contributors to global mortality. In today's demanding routine, we are being exposed to increasing levels of stress, which has become endemic. The only viable solution seems to be lifestyle modifications and altering one's attitude towards stress and hypertension; as there are various traditional methods of meditation, the chakra meditation is one of the methods of meditation for all age groups, gender, religion and socio-economical groups. Therefore, the present study aimed to undertake with an intention to explore the effect of a holistic approach of chakra meditation music to manage stress and pre-hypertension and then compare them with non-meditators. The results show that a remarkable improvement in mental, intellectual and physiological health benefits among the experimental group compared to the control group. It was also observed that slight decrease in systolic blood pressure from 125.7 to 122.2 mm Hg and diastolic blood pressure decreased from 85.4 to 83.4 mm Hg in experimental group. This shows that chakra meditation is soothing the mind, body and soul and helps in reducing the blood pressure levels and stress factors.

Key words : pre-hypertension, chakra meditation, blood pressure.

Hypertension is the most common preventable risk factor for cardiovascular disease (CVD; including coronary heart disease, heart failure, stroke, myocardial

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infarction, atrial fibrillation and peripheral artery disease), chronic kidney disease (CKD) and cognitive impairment and is the leading single contributor to all-cause death and disability worldwide[3].

A healthy human being can live productive life in the society. Health is a state of physical, mental, social, intellectual, emotional and spiritual well-being. Traditional Western medicine deals with the diagnosis and treatment of diseases, screening for common diseases, as well as some aspects of disease prevention. Ayurveda and Yoga primarily focused on health promotion and disease prevention. Meditation plays a major role in preventative medicine, spiritual energy, conceived within each person, has the power to make us whole. Meditation is the way by which one can tap into this latent power. A man once touched by this inner force can experience improved health of the body, senses, mind, soul and can radiate peace to others, to become a source in bringing healing to the whole universe.[8]

Meditation involves energizing the subtle system of chakras which correspond to the seven nerve plexuses. These chakras comprises of 1) Mooladhara Chakra(pelvic autonomic plexus) 2) Swadhistana Chakra (aortic plexus) 3) Nabhi Chakra (celiac plexus) 4) Hriday Chakra(cardiac plexus) 5) Vishuddhi Chakra(cervical plexus) 6) Agnya Chakra (optic chiasma) and 7) Sahasrara chakra (seven nuclei in the limbic system) which is actually the final integration of all the six chakras[11].

Meditation has several benefits improving the immune system and inflammatory processes by decreasing cytokine; appropriate telomere shortening also has helped healthy aging. Regarding physical health, meditation has been beneficial in various multi-factorial diseases like diabetes, hypertension, and fibromyalgia. It has also helped bring down blood cholesterol levels and increase high-density lipoproteins (HDL) levels.[5]

A fine balance and coordination in terms of energy exists between these different chakras. Meditation is known to have a cleansing and soothing effect on the different chakras and help in balancing the energies between them. Taking into account the above benefits the present study was undertaken with an intention to explore the effect of holistic approach of chakra meditation music to manage stress and pre hypertension and then compare them with non-meditators.

The present study is an endeavour in the same direction with the following objectives.

Aims and objectives :

This study was contemplated to observe the effect of meditation on Chakra energy and body parameters such as blood pressure. By adopting these non-pharmacological and easy techniques in one's life style, people can lead a healthier life.

- To administer the formulated questionnaire to record the family history, life style patterns, physical activity and food habits to the selected human volunteers.

- To assess the height, weight and body mass index of the subjects

- To focus on the indices to identify risk factors such as intellectual, mental, physiological stress factors and pre hypertension and recording of blood pressure before and after the study period among the subjects

- To study the effect of chakra meditation music for a period of 10 days on stress factors and blood pressure levels before and after the period of the study.

Methodology :

The sample of the study comprised of 20 subjects pre hypertensive of men and women volunteers of 30-40 years of age were selected for the study, since the prevalence of hypertension and stress was higher amongst this age group. The sampling procedure was purposive sampling. The initial screening of all the subjects include recording of blood pressure (BP) were done with the help of sphygmo-manometer to enroll them as subjects before starting the study. Care was taken to exclude individuals with diabetes mellitus, renal, liver, thyroid, asthma disease and subjects who were on medication influencing plasma lipids. Alcoholics were not included in the study. Twenty pre hypertensive patients with systolic blood pressure not more than 130 mm Hg and diastolic blood pressure not more than 90 mm Hg aged 30-40 yrs of both sexes. They were randomized into two groups; control group (n=10) who did not meditate and experimental group (n=10) who were asked to listen to the chakra meditation music downloaded from You Tube, for 10 minutes for a period of ten days.

General characteristics :

Table-1. General Characteristics of the Subjects

Variables	Men Mean (n = 8)	Women Mean (n = 12)
Age (Years)	37.2	36.5
Height (m)	1.63	1.50
Weight (kg)	70.55	68.37
Body mass index (kg/m^2)	26.3	31.1
Blood pressure :		
Systolic (mm Hg)	**125.25**	125.83
Diastolic (mm Hg)	**84**	83.6

The data presented in Table-1 clearly depict the age and sex distribution of subjects and found a higher proportion of females in the study. The mean age of 8 male and 12 female subjects was and 37.2 and 36.5 years. When the height of the men and women are compared the values were 1.63 m and 1.50 m and men are taller than women. The mean weight of men and women were 70.55 kg and 68.37 kg. The weights of both sexes are more than that of Reference man and Reference woman, comparing men and women the results show that the men are taller and heavier than their counterparts.

When matched with gender and BMI it was seen that BMI of men and women was 26.3 and 31.1 kg/m^2 respectively. BMI less than 25 was considered as an indicator of normal nutritional status of the adults[4]. BMI of women were more than that of men. Obesity in women may be attributed atleast partially to their low reported physical activity levels. The finding indicate that majority of the subjects had sedentary life style. It is desirable

to maintain a healthy BMI in the range of 20-25 for both men and women. Correction of obesity or weight reduction can be facilitated by exercise and this inturn would have a beneficial effect to normalize the hypertension.

The results according to gender, the mean SBP and DBP of men and women were 122.25mm Hg and 125.83mm Hg; 84 and 83.6 mm Hg diastolic blood pressure and did not differ significantly. At younger ages, men are at greater risk of high blood pressure than women, whereas in later years the prevalence was higher among women. Essential hypertension increasingly recognized as part of a complex multifaceted disorder with other abnormalities including dyslipidemia, central obesity, glucose intolerance and hyperinsulinaemia, all of which may increase the risk of coronary heart disease.

General Dietary Habits Survey :

In the dietary survey of the present research, the nutrient composition of the diets consumed by the subjects was recorded.

- Cereals were the main source of energy. Rice is the staple cereal. Other cereals like wheat and ragi were also consumed.
- Pulses like red gram, black gram, bengal gram, green gram and roasted bengal gram dhal were in frequent use. Groundnuts almost 3 times in a week were used.
- Among vegetables, other vegetables used daily, green leafy vegetables less frequently and potato was liberally used.
- Use of fruits depends upon the season and banana, papaya most frequently used fruit.
- Milk intake as such was less. Only 40 per cent of the subjects consume milk daily. It was usually taken in the form of coffee or tea, buttermilk and curd.
- Sugar was in frequent use rather than jaggery and honey. It was observed that 10 per cent of the subjects used groundnut oil, 40 per cent of the subjects used sunflower oil whereas 60 per cent used mustard, sesame, sunflower, coconut as cooking oil.
- 20 per cent used ghee daily followed by 40 per cent occasionally, 15 per cent rarely and 25 per cent not at all used. The daily users on an average took about 10-20 g/ day.
- All the subjects were consuming fried foods.
- The consumption of sweets among the subjects reveal that 15 per cent took once/ twice, 30 per cent took fortnightly once, 35 per cent took once in a month and 20 per cent took occasionally.
- Among non-vegetarian foods, eggs were in frequent use (weekly 2-3 times) and other flesh foods like chicken consumption was infrequent use weekly once, rarely twice. Mutton consumption was less in frequent use. Fish consumption is occasional.
- 80 per cent subjects were using garlic and 20 per cent were not using garlic at all.
- 90 per cent were using onion and 10 per cent are not using onion.

The type of diet has an important role in the development and progression of atherosclerosis. Often dietary practices directly result in increased levels of lipids in blood or trigger an underlying genetic tendency to hypertension. Dietary management has a major role in the control of CHD. A very slight modification in the dietary patterns is required in order to achieve significant effects of some of the dietary components on the disease

pattern. Such modifications may strengthen the preventive as well as curative role of diet in diseases like atherosclerosis and thereby lessen the morbidity and mortality rate of this disease.

Effect of Chakra meditation music on Mental, Intellectual and Physiological factors :

Table-2. Awareness on yoga and meditation

Characteristics	Control Group (n=10)	Experi-mental Group (n=10)
Yoga	10 (100)	10 (100)
Pranayama	2 (20)	3 (30)
a. Meditation	10 (100)	8 (80)
b. Chakra meditation	1 (10)	3 (30)

% in parenthesis

Awareness on yoga and meditation :

The data shows all the subjects were aware on the concept yoga, 50 per cent knows about pranayama, 90 per cent are aware of meditation and only 20 percent knows about chakra meditation.

Yoga is probably the best lifestyle ever devised in the history of mankind. It is a simple, means of giving non-judgmental way and view of life upon which people across culture and across which has been discovered and rediscovered several times in history as the 'Ultimate Prescription for countries has stumbled from time to time for centuries. This peace of universal wisdom, Health peace and joy has been organized into a systematic process in yoga[1].

Chakra Meditation on Mental Benefits :

Table-3. Effect of Chakra meditation on mental benefits

Mental benefits of meditation	Control Group (n=10)	Experi-mental Group (n=10)
Self esteem	-	4 (40)
Positive attitude increased	-	6 (60)
Peaceful, Calmness	-	8 (80)
Reduced stress levels	-	10 (10)
Self Awareness	-	3 (30)
Egoism decreased	-	2 (20)
Negative attitude decreased	-	30 (30)
Emotional intelligence improved	-	3 (30)
No Change	10(100)	

% in parenthesis

Table-3 The results shows that after 10 days of study period when the investigator asked the subjects the mental benefits of meditation to the experimental group, the 40 per cent subjects responded improved in self esteem, 60 per cent developed positive attitude, 80 percent said they felt very peaceful, calm, 100 per cent of the subjects accepted that they felt reduced stress levels, 30 percent said they benefitted self awareness, 20 per cent, 30 per cent subjects agreed that their egoism, negative attitude decreased. 30 percent said emotional intelligence improved. The control group did not get the benefit of chakra meditation hence 100 per cent of the subjects said there was no change with the above characteristics. The

results show that a remarkable improvement in the experimental group compared to control group.

Work related psychosocial stressors are known to affect the body functions through psychological processes, and influence health through four types of closely interrelated mechanisms-emotional, cognitive, behavioral, and physiological[7]. The health outcome depends on situational (*e.g.*, social support) and individual factors (*e.g.*, personality, coping repertoire).

Chakra meditaion improves self-esteem by improving several key emotional processes: ego regulation, emotional regulation and emotional maturity, self-awareness, self-confidence, self-image, self-respect, sense of self-worth, and reducing negative self-talk and faulty thinking.

Intellectual benefits of meditation :

Table-4 shows the subjects explored the experiences of chakra meditation during the study period and in the experimental group marked improvement in intellectual benefits like 20 per cent showed in communication skills, 10 percent slight improvement in memory, 50 per cent developed self confidence, 30 per cent and 20 per cent subjects improved in emotional balance and decision making with confidence. 100 per cent in experimental group responded chakra meditation has improved their quality of life during the experimental phase. The control group they did not listen to chakra meditation music so there was no change in the intellectual characteristics.

Table-4. Intellectual benefits of Chakra meditation

Intellectual benefits of meditation	Control Group (n=10)	Experi-mental Group (n=10)
Communication skills	-	2 (20)
Memory	-	1 (10)
Self confidence	-	5 (50)
Emotional Balance	-	3 (30)
Decision making	-	2 (20)
Improved quality of life	-	10 (100)
No Change	10(100)	

% in parenthesis

Intelligence is the capacity to learn from experience and adapt to the surrounding environment. Meditation helps to enhance the intellectual functions, like Communication Skills, Decision Making Ability, Productive Thinking, Reasoning Capabilities, Discriminating Power, Analytical Skill, Memory etc. A preliminary study proved that meditation effects on cognitive function and cerebral blood flow in subjects with memory loss[9].

Physiological benefits of meditation :

Table-5 reveals the physiological benefits of chakra meditation. Before listening to chakra meditation music the subjects were complained about giddiness, anger, irritation, restlessness, sometimes breathing problems, gastric problems like indigestion, constipation, no proper sleep. In the experimental 40 per cent subjects were slightly relieved from pain and discomfort in the body, 30 per cent and 60 per cent said decline of respiratory and gastro intestinal disturbances. 50 per cent subjects

reported they had good induced sleep. The control group as they were not meditators they experienced no change.

Table-5. Physiological benefits of Chakra meditation

Physiological benefits of meditation	Control Group (n=10)	Experi-mental Group (n=10)
Pain and Discomfort in the body	-	
Respiratory problems	-	4 (40)
Gastrointestinal disturbances	-	3(30)
Good Sleep	-	6 (60)
No Change	10 (100)	5 (50)

% in parenthesis

In meditation we lose awareness of any pains and discomforts in the body. We come out of meditation with renewed strength and vitality. Meditation helps us physically, putting us into a relaxed state, with a decreased arousal of sympathetic nervous system. Clinical trials of meditation in several stress related problems have verified improvement including hypertension, insomnia, asthma, phobic anxiety, chronic pain and cardiac tachyarrhythmias[2].

Impact of chakra meditation on Blood pressure :

The results in the table-6 indicate that the mean systolic blood pressure for control group was more or less the same with no decrease of 125.8 to 125.7 mm Hg; and diastolic 83.2 to 83.5mm Hg after 10 days period of the study because they did not do chakra meditation. The experimental group was subjected to chakra meditation for a period of 10 days and blood pressure was recorded on the initiation of the study and on tenth day of the study, it was observed slight decrease in systolic blood pressure from 125.7 to 122.2 mm Hg and diastolic blood pressure decreased from 85.4 to 83.4 mm Hg. This shows that chakra meditation is soothing the mind, body and soul and helps in reducing the blood pressure levels and stress factors.

Table-6. Impact of Chakra meditation on Blood pressure before and after the Study period

Group	Initial period Mean	Final period Mean
Control group (n-10)		
Blood pressure:		
Systolic (mm Hg)	125.8	125.7
Diastolic (mm Hg)	83.2	83.5
Experimental group (n-10)		
Blood pressure :		
Systolic (mm Hg)	125.7	122.2
Diastolic (mm Hg)	85.4	83.4

Meditation practice decreases the overall death rate of by 23% in older persons with high blood pressure[12].

After the favourable effects of a yogic lifestyle on coronary heart disease demonstrated by Ornish *et al.*,[10] and his colleagues, yoga is finding increasing acceptance as a non-pharmacological intervention for the prevention and treatment of several diseases.

Hypertension is a common disorder affecting 15% of adult population in India, Modern medicines can treat hypertension in long run but they have side effects[7]. So during last few decades, yoga and meditation has got incorporated into modern medicine itself.

In Sanātana/Hindu and tantric/yogic traditions and other belief systems, chakras are energy points or nodes in the subtle body. Chakras are part of the subtle body, not the physical body, and as such are the meeting points of the subtle (non-physical) energy channels called nadiis. Nadiis are channels in the subtle body through which the life force (prana) (non-physical) or vital energy (non-physical) moves and balance in life through eradiction of root cause in mind. It reduces tensions and help inflowing positive energy in the body by stilling the brain.

From the above result, it is concluded that meditation increases the eye center and throat center (chakra) energy, which increases consciousness in the body. The study conducted here, proves that person feel relaxed after meditation as it improved the mental and intellectual parameters, physiological parameters indicates like heart rate, regulates the Systolic Blood Pressure, Diastolic Blood Pressure in the Meditators and it indicates that they have a lower risk of developing Cardiovascular Diseases.

References :

1. Bijlani, R. L. (2004). *The yogic view of life with special reference to medicine*. In K. Joshi & M. Cornelissen (Eds.), *Consciousness, Indian Psychology and Yoga* (pp. 371–378). New Delhi: Centre for Studies in Civilizations.
2. Craven, John L (1998). *Canadian Journal of Psychiatry; 34*: 648-653.
3. Forouzanfar MH *et al*. (2015). *Lancet 388:* 1659–1724 (2016).
4. Ghafoorunissa and K. Krishnaswamy, (1998). *Diet and Heart Diseases*. Hyderabad: National Institute of Nutrition (NIN), Indian Council of Medical Research.
5. Jamil A, S Gutlapalli, and M Ali, *et al.* (2023). *Cureus 15*(6): e40650. doi:10. 7759/cureus.40650
6. Levi, L. (1990). *American Psychologist, 45:* 1142-1145.https://doi.org/10.1037/ 0003-066X.45.10.1142
7. Mishra TK (1993). *Indian Heart Journal, 44*(4): 322-325.
8. Neeru, Nathani (2014). *Pharma Science Monitor, 5*(3): Suppl-1, July–September 2014, pp. 293–296.
9. Newberg AB (2010). *Journal of Alzheimer's disease; 20:* 517-526.
10. Ornish D, SE Brown, LW Scherwitz, JH Billings, WT Amrstrong, TA Ports, SM McLanahan, Kirkeeide RL, RJ Brand and KL Gould (1990). *Lancet, 336:* 129-133.
11. Rajeev Chaudhary (2011). *Int J Sports Science & Engineering 5*(2): 77-84.
12. Schneider RH (2005). Long-term effects of stress reduction on mortality in older persons with Systemic Hypertension. American Journal of Cardiology 2005; *95*(9): 1060-1064.