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YOGA PRACTICE IMPACT ON WOMEN'S BLOOD PRESSURE AND HEART RATE

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ABSTRACT:

`Yoga is a technique which combines mind and body through asanas, Synchronous with breathing techniques like pranayama and meditation. Researcher selected the 40 women of age between 40-48 having physiological problems link hyper tension and heart diseases. Ait of the study to identify hyper tension and heart diseases and effect of yoga on it. Subject were selected from Amravati city, and divided into 2 homogeneous groups on the basis of pre-test i.e. control and experimental group. To the experimental group 6 weeks yogic practice was given. After 6 weeks post test was conducted. The result of the study shown significantly improvement of pulse rate (t = 35.78), systolic blood pressure (t = 13.11) and diastolic blood pressure (t = 24.78). Hence it is concluded that yogic practice improves the pulse rate and blood pressure.

KEYWORDS:

YOGIC PRACTICE, PULSE RATE, BLOOD PRESSURE.

INTRODUCTION

Yogic practice provides us with various beneficial effects.] Yogic practice also improves lipid profile, heart rate variability and stabilised Blood pressure. According to the National Family Health Survey (NFHS) data from 2005–2006, urban communities have a considerable rate of overweight or obesity. The survey also showed that middle-aged women are particularly more likely to have it. There are many explanations for the high prevalence of overweight/obesity among middle-aged women, according to various studies. According to research, the key factor contributing to overweight/obesity is a lower basal metabolic rate [6] as a result of less physical activity. According to a different study, oestrogen and growth hormones that are produced less frequently contribute to obesity. Overeating has been linked to overweight and obesity, according to a different study.

Studies have shown that obesity causes changes in the vascular anatomy that result in arterial stiffness. Obesity decreases vascular flexibility as a result of altered endothelial function, which may elevate blood pressure. Increased artery in time layer thickness will be the cause, which reduces arterial lumen diameter. Systolic blood pressure (SBP) is raised and diastolic blood pressure is simultaneously decreased due to arterial stiffness (DBP). The stress on the left ventricle is raised as a result, which raises the risk of myocardial infarction and other forms of coronary heart disease. This further raises pulse pressure.

METHODOLOGY

Researcher entitled the study is "Yoga Practice Impact on Women's Blood Pressure and Heart Rate". To identify the women having hyper tension and heart problems and to check the effect of yogic practice on them. 40 women were selected of age ranged between 40-48 years by using simple random method as subjects. 40 participants were split into two groups (yoga versus control) using computer-generated random software, or sealed envelopes, in a single-blind randomised control study. Participants were assigned at random to each group using opaque envelopes. At study enrollment, each subject underwent a thorough systemic checkup by a specialist doctor. Each participant completed a practise regimen of integrated yoga for 45 minutes, five days a week for six weeks, while also earning a postgraduate certificate in yoga. The control group's participants underwent traditional therapy. After 6 weeks of intervention, pre- and post-yoga therapy tests, including blood pressure and heart rate, were completed in both groups equally. During the course of the study, all individuals abstain from all other yoga-related activities. After 20 minutes of relaxation, individuals were pre- and post-assessed after 6 weeks. An Android sphygmomanometer that had been calibrated and verified was used to measure blood pressure. To maintain uniformity in sitting posture, both SBP and DBP recordings were made with the back supported, the legs straight, and the upper arms bared from the left hand. The participant's arm circumference was measured with the cuff area exposed and any items covering it removed. While taking measurements, participants were advised to remain silent. Each participant was comfortably seated while their pulse rates were recorded using a digital finger pulse oxymeter. Each participant filled out the participant information sheet.

Before the study began, a participant's full medical history and an information sheet were gathered. With the use of the yoga instructor's attendance records, compliance and adherence were evaluated. Yoga sessions were to be continued by participants for the full six-week intervention period. After six weeks, a feedback form was used to gauge the study participants' happiness and

obstacles they had to overcome.

In the Yogic practice including Sitilikarana Vyayama (loosening exercises), Surya Namaskar, Padmasana, Ardha Katichakarasana, Vipareeta karani, Bhujangasana, Padahastasana, Savasana, Chandra and Surya anuloma and villoma, Nadishodana Pranayama, Bhramari and Bhastrika Pranayama, Japa Meditation were given to the experimental group only.

ANALYSIS OF DATA

Control and experimental groups pre test and post test data was collected on blood pressure and heart rate. During the course of the study, all individuals abstain from all other yoga-related activities. After 20 minutes of relaxation, individuals were pre- and post-assessed after 6 weeks.

TABLE 1: COMPARISON OF PRE AND POST TEST OF EXPERIMENTAL AND CONTROL GROUP OF PULSE RATE AND BLOOD PRESSURE

variables	Group	Pre-test	Post-test	SD	t
1. Pulse Rate	Experimental	80.40	77.05	2.62	35.78*
	Control	81.35	80.40	2.84	
2. Systolic BP	Experimental	146.89	140.23	4.24	13.11*
	Control	147.90	146.11	5.20	
3. Diastolic BP	Experimental	86.70	80.20	3.40	24.78*
	Control	88.40	86.40	4.32	

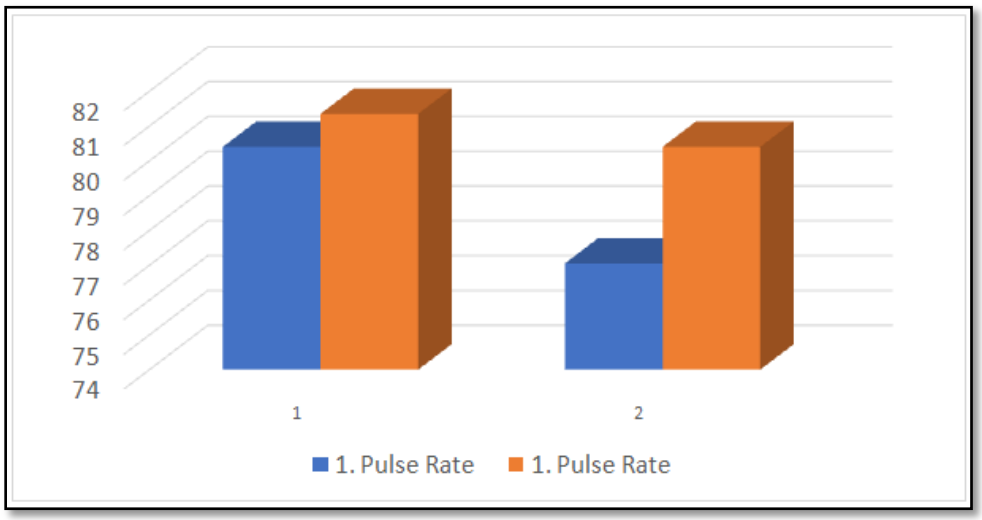

FIGURE 1: PULSE RATE OF CONTROL AND EXPERIMENTAL GROUPS

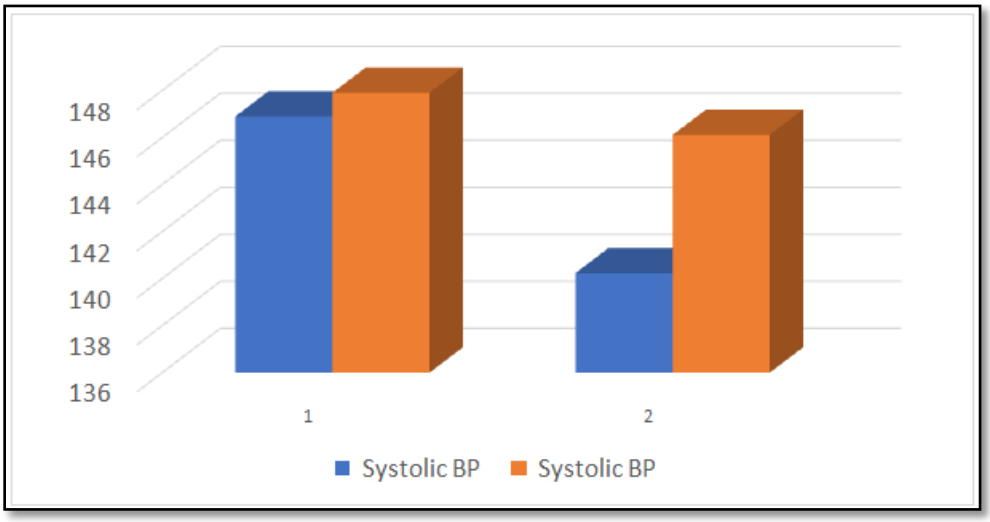

FIGURE 2: SYSTOLIC BLOOD PRESSURE OF CONTROL AND EXPERIMENTAL GROUPS

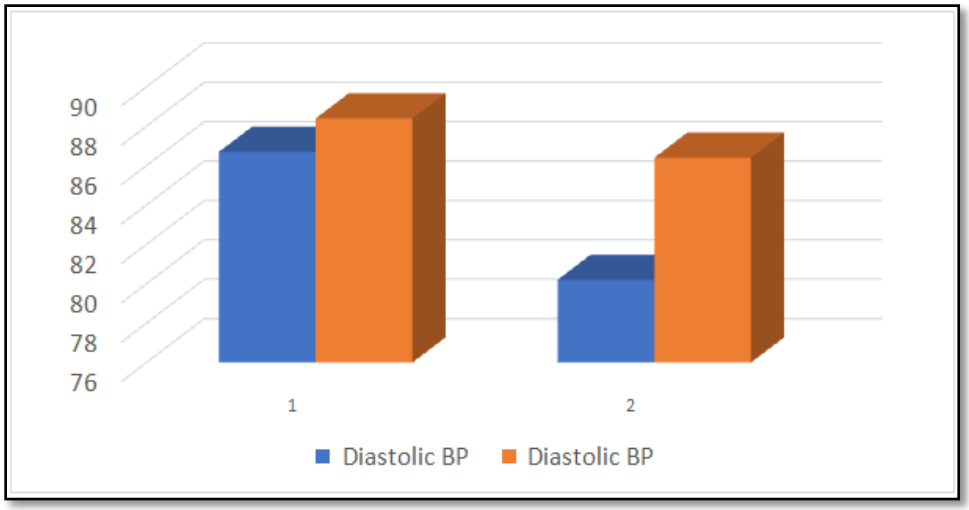

FIGURE 3: DIASTOLIC BLOOD PRESSURE OF CONTROL AND EXPERIMENTAL GROUPS

DISCUSSION:

According to the results of the current study, practising yoga for six weeks lowers the pulse rates of the experimental group than the control group. Additionally, the review article comes to the conclusion that practising yoga affects heart rate and control variability. Between the experimental and control groups, yoga training for 6 weeks revealed a significant difference in the mean SBP as well as DBP after doing and maintaining BP. Thus, it demonstrates that yoga treatment is a successful strategy for lowering blood pressure in those with chronic illnesses or hypertension. A meta-analysis revealed that yoga is a useful strategy for lowering blood pressure. Another longterm study was done to examine how yoga treatment affected women's levels of obesity and quality of life.

Meditation combined with yoga therapy helps us to quiet our minds, which enhances our mental alertness and leads to a normal, healthy life. A person's hunger and food cravings are lowered when they practise yoga and meditation. Women who practise yoga therapy experience inner harmony and stress reduction.

CONCLUSION

For overweight women, yoga therapy should be the preferred treatment option because it is simple for them to follow. Due to the limited sample size and short follow-up period used in this investigation. As researchers, we advise big sample size research with long-term follow-ups to ultimately demonstrate the effectiveness of yoga treatment. As childhood obesity is a serious issue in developing nations, yoga treatment can be efficiently and simply included into the curricula of schools and colleges. In order to treat hypertension patients holistically, encompassing their physical, emotional, social, and spiritual health, yoga therapy should be a crucial component of their care. While some chronic disorders may benefit from the therapeutic and restorative effects of yoga therapy, its primary focus is on prevention. Our study's observations of substantial improvements in physiological variables led us to conclude that yoga therapy is a good kind of treatment that enhances women's quality of life by lowering stress levels and weight as well.

REFERENCES

1. World Health Organization. Obesity and Overweight. World Health Organization: WHO. 2020. [Last accessed on 2021 Mar 10].

2. Gouda J, Prusty RK. Overweight and obesity among women by economic stratum in urban India. J Health Popul Nutr 2014;32:79-88.

3. Sahoo K, Sahoo B, Choudhury AK, Sofi NY, Kumar R, Bhadoria AS. Childhood obesity: Causes and consequences, J Family Med Prim Care 2015;4:187-92.

4. Kim D-Y, Jung S-Y. Effect of aerobic exercise on risk factors of cardiovascular disease and the apolipoprotein B/apolipoprotein a-1 ratio in obese woman. J Phys Ther Sci 2014;26:1825-9.

5. Subramanya P, Telles S. Effect of two yoga-based relaxation techniques on memory scores and state anxiety. Biopsychosoc Med 2009;3:8.

6. Krishna BH, Pal P, G K P, J B, E J, Y S, et al. Effect of yoga therapy on heart rate, blood pressure and cardiac autonomic function in heart failure. J Clin Diagn Res 2014;8:14-6.

7. Östh J, Diwan V, Jirwe M, Diwan V, Choudhary A, Mahadik VK, et al. Effects of yoga on well-being and healthy ageing: Study protocol for a randomised controlled trial (FitForAge). BMJ Open 2019;9:e027386.

8. Tyagi A, Cohen M. Yoga and heart rate variability: A comprehensive review of the literature. Int J Yoga 2016;9:97-113.

9. Hagins M, States R, Selfe T, Innes K. Effectiveness of yoga for hypertension: Systematic review and meta-analysis. Evid Based Complement Alternat Med 2013;2013:649836.

10. Annapoorna K, Vasanthalaxmi K. Effects of yoga therapy on obesity and quality of life in women: A longitudinal study. Int J Yoga Allied Sci 2017;2:18-24.