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Impact of Varied Integrated Modules of Yogic Practices on Selected Physiological Variable Among Middle Aged Women

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ABSTRACT

The goal of the study was to ascertain the impact of varied integrated yogic practices on chosen physiological variable among middle age women. The study only selected middle aged women (n=60) from in and around Sivagangai district, Tamilnadu. The age of the subject ranged from the 35 to 55. The subjects were separated in to four equal group fifteen each Group - I Asana (n=15), Group- II(n=15) Surya namaskar, Group - III Combined asana and surya namaskar(n=15) and Group- IV control group. The training was conducted thrice in a week for a total of twelve weeks. The training session lasted for 45 minutes. Control group was not involved in any special training. Collected data from experimental and control group were statistically analysed by Analysis of Covariance (ANCOVA) and the dependent "t" test. Data analysis determined that the corrected post-test means' "F" ratio was statistically significant. The conclusion of the study combined Asana and Surya namaskar group reduced the diastolic blood pressure more effectively than the Asana and Surya namaskar group.

Keywords: *Middle aged women, yogic practice s, Asana, Surya namaskar*

1. INTRODUCTION

Asana is a way of being that allows one to maintain balance, composure, quietness, and comfort both mentally and physically [1]. The term "asana" describes a certain physical posture that emphasises mindfulness and breath control [2]. A key element of yoga is the asanas, which promote physical health, mental clarity, and spiritual development [3]. Their goals and degrees of complexity vary because they concentrate on different body parts and health-related aspects [4].

The Surya Namaskar yoga pose is a traditional way to thank the Sun [5]. With Namaskar meaning "to greet" and Surya meaning "Sun," For this reason, it is also known as Surya Namaskar or Sun Salutation [6]. Thousands of years ago, the renowned "Patanjali" and his adherents devised this exact breathing and posture routine [7]. For the benefit of good health, endurance, mental and physical stability, and strength, all humans were told to practice it in the morning, facing the rising sun, on an empty stomach [8]. The breathing methods required for the Surya Namaskar sequence asanas are precise. It revitalises all of the body's tissues and cells. It offers physical strength, mental acuity, and flexibility [9].

Yoga may help women maintain their health and quality of life [10]. Yoga is a way of living that includes certain postures, breathing exercises, and meditation [11]. Therefore, the study's goal was to ascertain the effects of yoga practices on the physiological of middle-aged women from rural areas.

2. LITERATURE REVIEW

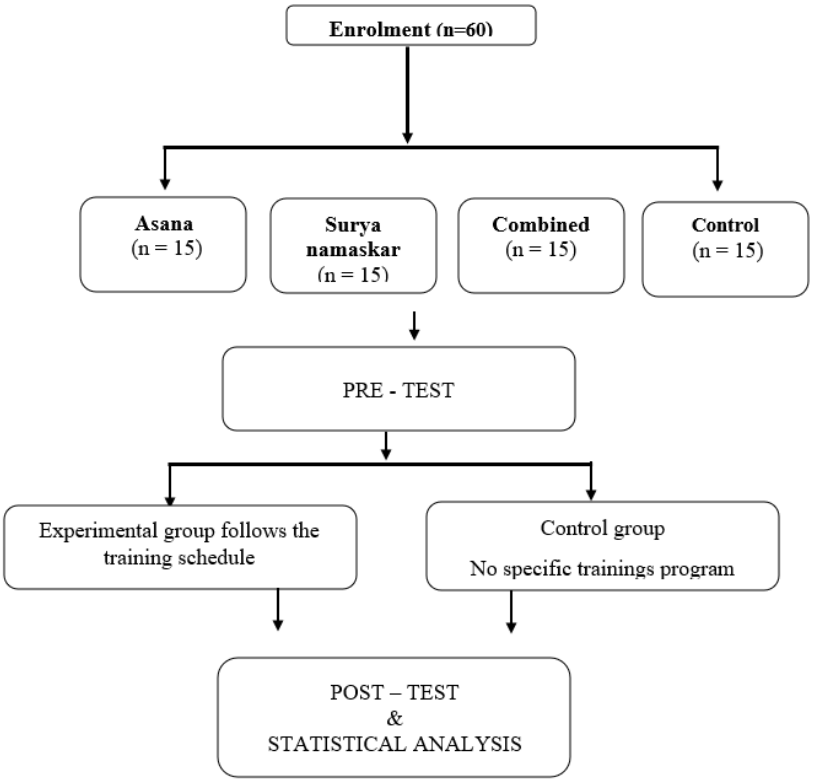
Devasena, I., & Narhare, P. (2011). The study's purpose was to determine how yoga affected the blood pressure and heart rate of healthy participants above the age of 40 years. Age, sex, and body mass index were taken into consideration while comparing and analyzing the data. Study's showed that subjects doing yoga experienced a significant decrease in heart rate ($P < 0.001$). There was a significant decrease in the systolic blood pressure ($P < 0.001$). Significantly reduced diastolic blood pressure was observed ($P < 0.001$). This demonstrates how yoga can significantly enhance aging and lower the morbidity and mortality rates associated with cardiovascular illnesses.

Muruguvalavan, V., & Jayanthi, V. (2019). In their study find out the effect of on BMI, Systolic & Diastolic Blood pressure among obese working women after performing suryanaskar. 15 working women from Ruby Grand Apartments, Thiruvanchery, Chennai, were chosen at random to serve as sample. The results not shown significant difference on BMI and diastolic pressure level, but in systolic pressure level there was significant change. The study findings revealed positive effect on systolic pressure after performing suryanaskar.

3. METHODS AND MATERIALS

The goal of the study was to ascertain the Impact of varied integrated yogic practices on chosen physiological variable of middle age women. Sixty (N=60) women subjects were selected randomly in and around Sivagangai district, Tamilnadu, India. Participant's age range was between 35 and 55. Total subjects were split up into four groups equally and all group consisting of fifteen subjects.

Flow chart 1 - Total number of Subjects N-60



The group I acted as Asana, group II acted asSurya Namaskar, combination of Asana and Surya Namaskar performed by group III, group IV acted as a control group. The training was conducted three sessions weekly for a total of twelve weeks. The training session lasted for 45 minutes. The group – I erformed forward bending asanas, backward bending asanas and sideward bending asana. Group – II performed Suryanasmkar and Group - III performed combined asans and suryanamaskar but they performed asanas and suryanamaskar in different sessions. Control group did not get involved in any special training.

Testing procedure

Collection of data was conducted before and after the training session. Pre-test were conducted before the training and post-test were conducted after the training intervention. Sphygmomanometer was used as testing tool for data collection.

S.no	Variable	Test Items	Unit of measurement
1	Diastolic blood Pressure	Sphygmomanometer	mmHg

Collected data from experimental and control group were statistically analysed by Analysis of Covariance (ANCOVA) and the dependent "t" test. Data analysis determined that the corrected post-test means' "F" ratio was statistically continue the sentence with statistically significant at 0.05 level of confidence.

4. RESULT ANALYSIS

Table-I mean and Dependent 't' test Systolic blood pressure on experimental groups and control group

Mean	Asana	Surya namaskar	Combined Asana & Surya namaskar	Control group
Pre- test	88.07	90.40	89.95	91.27
Post- test	85.20	86.00	85.00	92.33
't' test	2.98	3.10	2.90	1.95

**significant at 0.05 level of confidence*

Table –I shows that the obtained 't' values on Diastolic Blood pressure of Asana, Surya namaskar, Combined and control group are 2.98,3.10,2.90 and 1.95 respectively. Since the table value required significant difference with 3 df 14 at 0.05 level is 2.78 significant improvement in Diastolic blood pressure were seen in experimental groups, including the Asana, Surya namaskar, Combined Asana & Surya namaskar and control group.

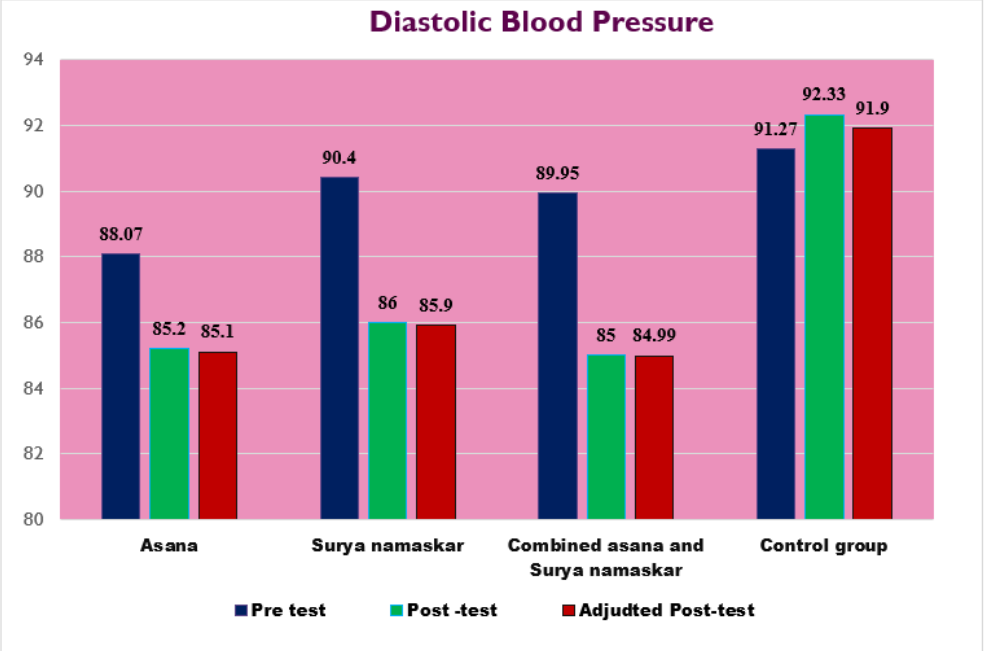


Figure 1. Pre, Post and Adjusted Post-test mean values of Asana, Surya namaskar, Combined Asana and Surya namaskar and Control group on Diastolic blood pressure

Figure 1 depicts the Pre, Post and Adjusted Post-test mean values of Asana, Surya namaskar, Combined Asana and Surya namaskar and Control group on Diastolic blood pressure

Table-II Analysis of Covariance on Diastolic blood pressure of EG and CG

Adjusted Post-test Means				sources of variances	Sum of Squares	df	Mean squares	'F' ratio
Asana	Experimental Group II (Surya namaskar)	Experimental Group III (combined Asana and Surya namaskar)	Control Group					
85.10	85.90	84.99	91.90	B	452	3	436.41	39.03*
				W	750.92	56	11.18	

**Significant at 0.05 level of confidence*

Table- II showed that the post-test adjusted average for Asana, Surya namaskar, Combined Asana & Surya namaskar and control group are 85.10, 85.20, 85.04 and 91.90 in that order. The Corrected post-test scores showed 'F' ratio of which greater than the 2.78 table values for degrees of freedom 3 and 56, which were necessary for Significant at 0.05 level of confidence for Diastolic blood pressure.

5. DISCUSSION OF FINDINGS

This study was conducted to analyze the Impact of varied integrated yogic practices on chosen physiological variable among middle age women. Our findings suggest in comparison to the Asana and Surya Namaskar group, the combined group's method of lowering diastolic blood pressure was more successful. The control group did not experience an elevation in diastolic blood pressure.

Our study corroborate with previous studies that provides the potential role of yoga as an additional therapy for people managing hypertension is highlighted by strong evidence of the beneficial effects of yoga practices on middle-aged hypertensive women's Diastolic blood pressure and the observed decrease in DBP. In a previous study of Muruguvalavan, V., & Jayanthi, V. (2019) concluded that the diastolic pressure level changed significantly with 12 weeks suryanamaskar practice, however the diastolic pressure level did not alter significantly. The study demonstrated that suryanamaskar had a beneficial impact on Diastolic pressure. One meta-analysis has a similar to our study that shown to have a favorable impact on blood pressure, with a statistically significant decrease in blood pressure. A study conducted in adolescence by Adhikari, A., & Sahu, D. P. (2016) concluded that yogic exercises helps to minimize blood pressure.

6. CONCLUSION

The study's findings showed that, in comparison to the Asana and Surya Namaskar group, the combined group's method of lowering diastolic blood pressure was more successful. The control group did not experience an elevation in diastolic blood pressure.

REFERENCES

[1] Rebon, B. (2024). The Power of Now: Mindfulness Strategies to Relieve Stress and Enhance Your Life. Brenda Rebon.

[2] Ito, M. (2024). Modern Postural Yoga, Meditation, and Spiritual Seeking: Ashtanga Vinyasa Yoga and "Moving Meditation". Religions, 15(11), 1399.

[3] Deshmukh, L., Janghel, U., Sonkuwar, A., & Thakur, R. (2024). Exploring the Synergy between Yoga and Mindfulness Sport Practices: Enhancing Mental and Physical Well-Being. Indian Journal of YOGA Exercise & Sport Science and Physical Education, 26-32.

[4] Price, J. (2024). Understanding how yoga relates to adults' experiences and their relationships with oneself and others after gynecologic cancer treatment (Doctoral dissertation, Université d'Ottawa| University of Ottawa).

[5] Bhandage, V., Prabhu, S., Hadimani, B. S., Chadaga, K., Sampathila, N., & Shetty, S. (2024). Classification of Surya Namaskar Yoga Asanas: A Sequential Combination of Predominant Poses for Physical and Mental Health. IEEE Access.

[6] Balaji, E., Murugavel, K., Rajkumar, M., Logeswaran, S., Vijayasankar, V., & Devaraj, C. (2024). The Effect of a Six-Week Course of Surya Namaskar Practice on Back Flexibility and Lumbar Flexion in Male College Students. Physical Education Theory and Methodology, 24(1), 41-46.

[7] Agarwal, S. K. (2024). Anatomy-Physiology & Yogic Practices. Academic Guru Publishing House.

[8] Taylor, M. J. (2024). Yoga Therapeutics: An Ancient Practice in a Twenty-First Century Setting. In Integrative Therapies in Rehabilitation (pp. 181-202). Routledge.

[9] Balaji, E., Murugavel, K., Rajkumar, M., Logeswaran, S., Vijayasankar, V., & Devaraj, C. (2024). The Effect of a Six-Week Course of Surya Namaskar Practice on Back Flexibility and Lumbar Flexion in Male College Students. Physical Education Theory and Methodology, 24(1), 41-46.

[10] Gogojewicz, A., Pilaczyńska-Szcześniak, Ł., Popierz-Rydlewska, N., León-Guereño, P., & Malchrowicz-Mośko, E. (2024). Assessment of nutritional status and health behaviors in yoga-trained women versus exercisers. Frontiers in Nutrition, 11, 1334428.

[11] Sharma, D., & Sharma, B. R. (2024). The impact of yoga and meditation on mental and physical well-being. Journal of Ayurveda and Integrated Medical Sciences, 9(5), 144-153.

[12] Devasena, I., & Narhare, P. (2011). Effect of yoga on heart rate and blood pressure and its clinical significance. Int J Biol Med Res, 2(3), 750-3

[13] Muruguvalavan, V., & Jayanthi, V. (2019). Effect of suryanamaskar on body mass index, systolic and diastolic blood pressure among obese working women. International Journal of Yogic, Human Movement and Sports Sciences, 4(1), 976-977.

[14] Chakraborty, S., & Chakraborty, M. Effect Of Yogic Practices On Selected Physiological Variables Among Middle Aged Hypertensive Women.

[15] Cramer, H., Quinker, D., Schumann, D., Wardle, J., Dobos, G., & Lauche, R. (2019). Adverse effects of yoga: a national cross-sectional survey. BMC complementary and alternative medicine, 19, 1-10.

[16] Chakraborty, S., & Chakraborty, M. EFFECT OF YOGIC PRACTICES ON SELECTED PHYSIOLOGICAL VARIABLES AMONG MIDDLE AGED HYPERTENSIVE WOMEN.

[17] Muruguvalavan, V., & Jayanthi, V. (2019). Effect of suryanamaskar on body mass index, systolic and diastolic blood pressure among obese working women. International Journal of Yogic, Human Movement and Sports Sciences, 4(1), 976-977.

[18] Khandekar, J. S., Vasavi, V. L., Singh, V. P., Samuel, S. R., Sudhan, S. G., & Khandelwal, B. (2021). Effect of Yoga on Blood Pressure in Prehypertension: A Systematic Review and Meta-Analysis. The Scientific World Journal, 2021(1), 4039364.

[19] Adhikari, A., & Sahu, D. P. (2016). Effect of yogic exercises on physiological variables among the adolescents.

[20] Devasena, I., & Narhare, P. (2011). Effect of yoga on heart rate and blood pressure and its clinical significance. Int J Biol Med Res, 2(3), 750-3

[21] Muruguvalavan, V., & Jayanthi, V. (2019). Effect of suryanamaskar on body mass index, systolic and diastolic blood pressure among obese working women. International Journal of Yogic, Human Movement and Sports Sciences, 4(1), 976-977.