



Impact Of Yogic Practices On Diastolic Blood Pressure Among Kabaddi Players

¹RAJAVATHI, P., & ²Dr. C. SELVARAJA

¹ UG Student & ² Assistant Professor

^{1&2} Department of Physical Education, St. Xavier's College, Palayamkottai, Tirunelveli, Tamilnadu, India

Abstract: To achieve the purpose of this study, 20 men kabaddi players were randomly selected as subjects from the St. Xavier's college, Palayamkottai, Tirunelveli, Tamilnadu, India. Their age ranged from 18 to 25 years. The selected participants were randomly divided into two groups such as group 'A' yogic practices (n=10) and group 'B' acted as control group (n=10). Group 'A' underwent yogic practices for five days per week and each session lasted for an hour for eight week. Control group was not exposed to any specific training but they were participated in regular activities. The "diastolic blood pressure" millimeters of mercury (mmHg) were used to measure Sphygmomanometer was selected as variables. The pre and post tests data were collected on selected criterion variables prior and immediately after the training program. The pre and post-test scores were statistically examined by the dependent 't' test and Analysis of co-variance (ANCOVA). The level of significant was fixed at 0.05 level. It was concluded that the yogic practices group had shown significantly improved in diastolic blood pressure. However the control group had not shown any significant improvement on diastolic blood pressure.

Index Terms – Yogic, Diastolic Blood Pressure, Kabaddi Players

1. INTRODUCTION

Yoga is an art and science originated in India thousands of years ago. The word yoga is derived from the Sanskrit word 'Yuj' means 'yoke' or unite. Yoga is not only physical or mental exercise to be healthy but it is a practice that unites the soul with the universal consciousness or supreme self. Yoga along with providing physical and mental health, in advanced state makes one experience union of body, mind and internal energy to the universal energy that provides better physical health, mental control, and self-realization. Yogic exercises are different from aerobics, sports, gymnastics workouts which increase heart rate, achieve cardiovascular workout, leave a person sweat more, exhausted & more breath out. Yoga instead of giving tiredness makes a person feel physically and mentally relaxed. The main aim of yoga is to promote wellness, good health, and the well being of mind, body, and spirit. Murugesan, R., Govindarajulu, N., & Bera, T. K. (2000). Pranayama is composed of complex breathing that calm body and mind. The main aim of pranayama is to regulate breathing. It acts by making breathing slow and deep. Slow breathing acts by a generalized decrease in the excitatory pathways regulating respiratory and cardiovascular systems. A neural control mechanism is the same for the respiratory and cardiovascular system, so alteration in one system will modify the functioning of the other Vyas, R., & Dikshit, N. (2002). Slow and deep breathing inflates lungs to its maximum capacity. This inflation stretches pulmonary stretch receptors which result in decreased sympathetic tone in skeletal muscle blood vessels resulting in peripheral vasodilatation and decreased peripheral resistance and thus decreases diastolic blood pressure. During the practice of pranayama, one concentrates on the act of breathing which diverts attention from worries and de-stresses him. This stress-free state of mind evokes relaxed responses in which parasympathetic nerve activity overrides sympathetic activity. The ancient science of Yogic practices is an ancient treatment method to heal the blood pressure. Kabaddi is a high-intensity sport that requires bursts of speed, strength, and endurance. Due to the physically demanding nature of the game, players experience increased cardiovascular stress, which can influence blood pressure levels. The integration of yogic practices into their training regimen

likely contributed to improved diastolic blood pressure by promoting vascular relaxation, improved circulation, and reduced stress responses.

2. METHODOLOGY

To achieve the purpose of this study, 20 men kabaddi players were randomly selected as subjects from the St. Xavier's college, Palayamkottai, Tirunelveli, Tamilnadu, India. Their age ranged from 18 to 25 years. The selected participants were randomly divided into two groups such as group 'A' yogic practices (n=10) and group 'B' acted as control group (n=10). Group 'A' underwent yogic practices for five days per week and each session lasted for an hour for eight weeks. Control group was not exposed to any specific training but they were participated in regular activities. The "diastolic blood pressure" millimeters of mercury (mmHg) were used to measure Sphygmomanometer were selected as variables. The pre and posttests data were collected on selected criterion variables prior and immediately after the training program. The pre and post-test scores were statistically examined by the dependent 't' test and Analysis of co-variance (ANCOVA). The level of significance was fixed at .05 level of confidence, which was considered as appropriate

3. RESULTS AND DISCUSSIONS

TABLE-1
MEANS AND DEPENDENT 'T' TEST FOR THE PRE AND POST TESTS ON DIASTOLIC BLOOD PRESSURE OF EXPERIMENTAL AND CONTROL GROUP

Criterion Variables	Test	Experimental Group Mean	Control Group Mean
Diastolic Blood Pressure	Pre test	81.66	81.57
	Post test	78.24	81.21
	't'test	9.37*	0.87

*Significant at .05 level. (Table value required for significance at .05 level for 't'-test with df 9 is 2.26)

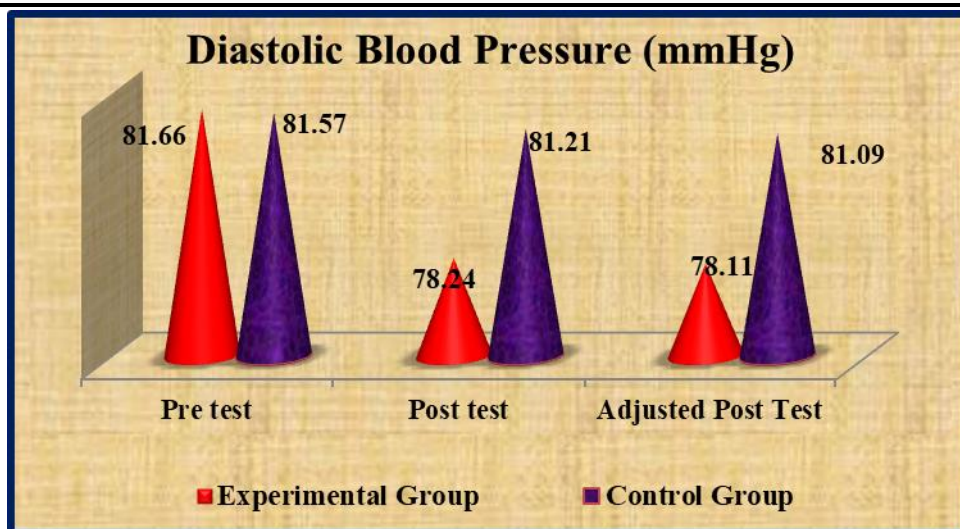
The table-1 shows that the obtained dependent t-ratio values between the pre and posttest means of yogic practices and control groups are 9.37 & 0.87 respectively. The table value required for significant difference with df 9 at 0.05 level is 2.26. From the above table the dependent 't'-test value of diastolic blood pressure between pre and post tests means of experimental group was greater than the table value 2.26 with df 9 at .05 level of confidence, it was concluded that the experimental group had significant improvement in the diastolic blood pressure when compared to control group.

TABLE-2
COMPUTATION OF MEAN AND ANALYSIS OF COVARIANCE DIASTOLIC BLOOD PRESSURE OF EXPERIMENTAL AND CONTROL GROUPS

	Experimental Group	Control Group	Source of Variance	Sum of Squares	Df	Mean Square	F-Ratio
Diastolic Blood Pressure (Adjusted PostMean)	78.11	81.09	BG	117.73	1	117.73	27.19*
			WG	73.61	17	4.33	

* Significant at 0.05 level. Table value for df 1, 17 was 4.45

Table-2 shows that the adjusted post test means values on diastolic blood pressure of experimental and control groups 78.11 & 81.09 respectively. The obtained f- ratio of 27.19 for adjusted post test mean is greater than the table value 4.45 with df 1 and 17 required for significance at 0.05 level of confidence. The results of the study indicated that there was a significant mean difference exist between the adjusted post test means of yogic practices and control groups on diastolic blood pressure.



The bar diagram figure-1 shows that the mean values of pre, post and adjusted post tests on diastolic blood pressure of yogic exercises and control groups.

4. DISCUSSION ON FINDINGS

The present study demonstrates a statistically significant improvement in diastolic blood pressure among male kabaddi players who engaged in yogic practices. These findings are consistent with previous research by Pandya, N. H., Goswami, T., & Trivedi, R. S. (2020) and Kaleeswari, G., Kalyani, C. V., Jayarani, J. S., & Rohilla, K. K. (2021), which highlighted the beneficial effects of yoga on cardiovascular health and blood pressure regulation. One of the key factors contributing to this improvement is yoga's impact on the autonomic nervous system. Regular practice of asanas (postures), pranayama (breathing techniques), and meditation enhances parasympathetic activity while reducing sympathetic dominance, leading to better blood vessel relaxation and improved circulation. In particular, pranayama techniques such as Bhramari (humming bee breath) and Anulom Vilom (alternate nostril breathing) help in lowering stress-related hormonal responses, which are directly linked to diastolic blood pressure regulation. Kabaddi is a high-intensity sport that demands significant physical exertion, rapid movements, and endurance. The integration of yogic practices not only aids in cardiovascular efficiency but also helps in reducing post-exercise recovery time and improving overall physiological balance. By reducing mental stress, improving lung function, and enhancing vascular flexibility, yoga serves as a natural and effective intervention for maintaining optimal diastolic blood pressure in athletes. These findings suggest that incorporating yoga into kabaddi training regimens could provide long-term cardiovascular benefits, improving endurance, performance, and recovery.

5. CONCLUSIONS

Within the limitations and delimitations of this study the following conclusions were drawn from the result.

1. There was significant improvement on diastolic blood pressure due to the effect of yogic exercises among kabaddi players.
2. However the control group had not shown any significant improvement on any of the selected variables.

6. REFERENCES

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