

Comparative Study of Selected Physiological Variables of Yoga Practitioner And Weight Trainee of Manipur

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ABSTRACT

The purpose of the study was to examine the assessment of selected physiological variables such as resting heart rate, respiratory rate, body composition and breadth holding capacity among the yoga practitioner and weight trainee. 20 male yoga practitioners from The Yoga Physique Institute and Studies, Imphal and 20 male weight trainee from Cleopatra Fitness Centre Nambol of the aged 18 to 24 years were selected randomly. Descriptive statistic and T-Test was used to find out the difference between two groups. The level of significance was set at 0.05. The study revealed there were no significant difference of the selected physiological variables between the Yoga practitioner and Weight trainee of Manipur.

Keywords: Yoga practitioner, Weight trainee, Male, Resting Heart Rate, Respiratory Rate, Body Composition, Breadth Holding Capacity

INTRODUCTION

The word yoga means 'unity' or 'oneness' and is derived from the Sanskrit word 'yuj' which means 'to join'. Yoga is a systematic practice of physical exercise, breath control, relaxation, diet control, and positive thinking and meditation aimed at developing harmony in the body, mind, and environment. The practice entails low-impact physical activity, postures (called asana), breathing techniques (pranayama), relaxation, and meditation. Weight training is a common type of strength training for developing the strength and size of skeletal muscles. It utilizes the force of gravity in the form of weighted bars, dumbbells or weight stacks in order to oppose the force generated by muscle through concentric or eccentric contraction. The basic principles of weight training are essentially identical to those of strength training, and involve a manipulation of the number of repetitions (reps), sets, tempo, exercise types, and weight moved to cause desired increases in strength, endurance and size. Breathing In weight training, as with most forms of exercise, there is a tendency for the breathing pattern to deepen. This helps to meet increased oxygen requirements.

The purpose of the study was to investigate the comparative study on selected physiological variables between yoga practitioners and weight trainee of Manipur.

METHODOLOGY

To achieve the purpose of the study, 20 males yoga practitioner from the Yoga Physique Institute and Studies, Imphal and 20 males weight trainee from Cleopatra Fitness Centre Nambol, Manipur and their age ranged between 18 to 24 years were selected randomly.

Table 1: Variables of the study

Variables	Criterion measures	Unit
Resting heart rate	Pulse beat	Number
Respiratory rate	Upward and downward movement of abdomen	Number
BMI	Weight and height	Kg/m ²
Breath holding capacity	Nose clip	Sec

The data was tested and calculated by mean \pm SD and t-test at 0.05 level of significance.

ANALYSIS AND DISCUSSION

The data collected were analysed and presented in Table 2 of the physiologies (Resting Heart Rate, Respiratory Rate, Body Composition and Breath Holding Capacity) variables between Yoga Practitioner and Weight Trainee of Manipur.

Table No. 2: Comparison mean and standard deviation and t-test value of the Resting Heart Rate, Respiratory Rate, Body Composition and Breath Holding Capacity between Yoga Practitioner and Weight Trainee of Manipur

Test for	Group	Mean \pm SD	t-test value
Resting Heart Rate	Yoga practitioner	77.8 \pm 8.13	0.588
	Weight trainee	76.45 \pm 6.27	
Respiratory Rate	Yoga practitioner	20.05 \pm 3.17	- 0.328
	Weight trainee	20.45 \pm 4.44	
Body Composition	Yoga practitioner	18.9 \pm 0.97	- 6.44
	Weight trainee	22.86 \pm 2.57	
Breath Holding Capacity	Yoga practitioner	38.4 \pm 6.3	1.43
	Weight trainee	34.21 \pm 11.52	

*0.05 significant level

On Resting Heart Rate between Yoga Practitioner and Weight Trainee of Manipur revealed the mean \pm SD were 77.8 \pm 8.13 and 76.45 \pm 6.27 respectively. The t-test value 0.588 was lesser than the table value. There was no significant difference of Resting Heart Rate test between Yoga practitioner and Weight trainee of Manipur.

On Respiratory Rate between Yoga Practitioner and Weight Trainee of Manipur exposed the mean \pm SD were 20.05 \pm 3.17 and 20.45 \pm 4.44 respectively. The t-test value - 0.328 was lesser than the table value. There was no significant difference of Respiratory Rate test between Yoga practitioner and Weight trainee of Manipur.

On Body Composition between Yoga Practitioner and Weight Trainee of Manipur shown the mean \pm SD were 18.9 \pm 0.965 and 22.86 \pm 2.57 respectively. The t-test value -6.44 was lesser than the table value. There was no significant difference of Respiratory Rate test between Yoga practitioner and Weight trainee of Manipur.

On Breath Holding Capacity between Yoga Practitioner and Weight Trainee of Manipur revealed the mean \pm SD were 38.4 ± 6.3 and 34.21 ± 11.52 respectively. The t-test value 1.43 was lesser than the table value. There was no significant difference of Respiratory Rate test between Yoga practitioner and Weight trainee of Manipur.

CONCLUSION

The result of the study revealed there were no significant difference of the selected physiological variables between the Yoga practitioner and Weight trainee of Manipur.

BIBLIOGRAPHY

Bhargava R, Gogate MG and Macarenhas JF. 1988. Autonomic responses to breath holding and its variations following pranayama. *Indian Journal of Physiology and Pharmacology*, 32(4): 257- 264.

Chen KM and Tseng WS. 2008. Pilot-testing the effects of a newly-developed silver yoga exercise program for female seniors. *Journal of Nursing Research*, 16(1): 37-46.

Chen TL. 2009. The effect of yoga exercise intervention on health related physical fitness in school age asthmatic children. *Journal of Nursing*, 2: 42.

Gopal KS, Bhatnagar OP, Subramanian N and Nishith SD. 1973. Effect of yogasana and pranayamas on blood pressure, pulse rate and some respiratory functions. *Indian Journal of Physiology and Pharmacology*, 17(3): 273-276.

Indla D and Pandurang N. 2011. Effect of yoga on heart rate and blood pressure and its clinical significance. *International Journal of Biological & Medical Research*, 2(3):750-753.

Joseph S, Sridhar K, Patel SKB, Kumaria ML, Selvamurthy W, Joseph NT et al. 1981. Study of some physiological and biochemical parameters in subjects undergoing yoga training. *Indian Journal of Medical Research*, 74: 120-124.

Kulkarni OS and Joshi AG. 2019. Study of selected physical fitness parameters in male yoga practitioners. *Indian Journal of Physiology and Pharmacology*, 63(3): 236–241.

Maud PJ and Foster C. 2006. *Physiological Assessment of Human Fitness* (2nd Ed). Human Kinetics: New Delhi, pp 242-245.

Roberts RA and Scott RO. 2000. *Fundamental Principle of Exercise Physiology* (1st Ed.) Mc Graw Hill: USA.

Sahu DP. 2019. Comparative study on selected physiological variables between yoga practitioners and sedentary college girls. *International Journal of Yogic, Human Movement and Sports Sciences*, 4(1): 353-356.

Selvamurthy W, Nayar HS, Joseph NT and Joseph S. 1983. Physiological effects of yogic practice. *Nimhans Journal*, 71-80.

Sujatha T and Elangovan R. 2020. Impact of yogic practices on physiological selected factors of overweight adult women. *European Journal of Molecular & Clinical Medicine*, 7(9): 1110-1117.

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Sunder P. 2009. *Yoga for Fitness*. Khel Sahitya Kendra Publication: New Delhi. pp- 60-71.

Telles S, Sharma SK, Yadav A, Singh N and Balkrishna A. 2014. A comparative controlled trial comparing the effects of yoga and walking for overweight and obese adults Medical science monitor. *International Medical Journal of Experimental and Clinical Research*, 20: 894-904.