



P-ISSN: 2394-1685
E-ISSN: 2394-1693
Impact Factor (ISRA): 5.38
IJPESH 2016; 3(5): 155-157
© 2016 IJPESH
www.kheljournal.com
Received: 30-07-2016
Accepted: 31-08-2016

Deepender Singh
Scholar Department - Amity
School of physical education &
Sports Sciences
University- Amity University
Noida Sec 125, (U.P), India

Dr. Inder Singh pal
Assistant Professor Department -
Amity School of physical
education & Sports Sciences
University- Amity University
Noida Sec 125, (U.P), India

Correspondence
Dr Inder singh pal
Assistant Professor Department -
Amity School of physical
education & Sports Sciences
University- Amity University
Noida Sec 125, (U.P), India.

International Journal of Physical Education, Sports and Health

Physiological profile of yoga practitioners in various fitness centers of Delhi

Deepender Singh and Dr. Inder Singh pal

Abstract

The purpose of the study was to check physiological profile of various yoga practitioner physiological variables such as Blood pressure (systolic and diastolic), vital capacity, and peak flow, resting heart rate, resting respiratory rate and blood glucose. 20 male yoga practitioners, aged 22 to 35 were selected as subjects on the basis of random sampling from various fitness centers of Delhi. Peak flow rate, blood pressure (systolic and diastolic) & resting heart rate, resting respiratory rate, vital capacity and blood glucose were measured by peak flow meter, electronic blood pressure monitor, and stop watch To analyze the physiological variables of yoga practitioners descriptive analysis was employed and found mean value (458.88±49.60) on peak flow. Mean of male yoga Practitioners (126.33±5.09) on systolic blood pressure. Mean of male yoga Practitioners (80.88±5.81) on diastolic blood pressure. Mean of male yoga Practitioners (65.88±2.14) on resting heart rate. Mean of male yoga Practitioners (8.55±0.72) on resting respiratory rate. Mean of male yoga Practitioners (4.85±0.19) on vital capacity.

Keywords: Physiology, Yoga, Fitness.

Introduction

In this modern era most of the people are in dilemma that which type of activity which they should do to stay fit and which can give them the more benefits in the less time so one questions comes in every bodies mind is that whether doing yoga may enhance the state of health by improving physiological abilities so, there should be some studies required which can give some idea about the physiological profile of yoga practitioners. Yoga is the science of right living and, as such, is intended to be incorporated in daily life. It works on all aspects of the person: the physical, vital, mental, emotional, psychic and spiritual (Swami Satyananda Saraswati, 2006). The practice of yoga has been proved throughout the ages to be one of the most effective ways to create and maintain a healthy lifestyle that, overtime, will lead to a permanent, healthy weight physically and mental therapy is one of yoga's most important achievements. What make it so powerfully effective are the facts that it works on the holistic principles of harmony and unification. Yoga has succeeded as an alternative form of therapy in diseases such as asthma, diabetes, blood pressure, and constitutional nature where modern science has not. Yoga provides a means for people to find their own way of connecting with their true selves. Through this connection with their real selves it is possible for people to manifest harmony in the current age and for compassion to emerge where infect, there has been none. So this study is done to check the status of yoga practitioners with the help of their physiological profiling.

Methodology

Subjects

A sample of 20 male yoga practioners was selected by the random purposive sampling those who are practicing yoga regularly since last 3 to 4 years. Before undergoing the test, all the subjects were informed about the testing procedures, including possible risks involved and benefits of the study for the development and scope of yoga in the future for the maintenance of the fitness and the competition perspectives.

Data Collection

The data collection was done in various fitness centers of Delhi. Peak flow rate was measured with the peak flow meter in l/m. Blood pressure (Systolic and diastolic) and heart rate was measured with the electronic blood pressure monitor (DR MOREPEN). Resting respiratory rate was measured manually. Resting heart rate was measured manually. Vital capacity was measured with a dry spirometer in ml.

Physiological Variables Measured

The physiological variables selected for the study were as follows: Peak flow, Blood pressure, heart rate, respiratory rate vital capacity.

Statistical Analysis

For this study the data was collected from the various reputed fitness centers of Delhi i.e. fitness first, Reebok fitness, Delhi yoga and various tests administered personally to 20 male yoga practitioners. To complete the study method descriptive method with the help of SPSS20 software was used to analyze the data.

Results

The statistics of the subjects is shown in the Table 1 as below

Table 1.

Variables	N	Mean	Std. Deviation
Peak Flow	20	458.88	49.60
Blood Pressure (Systolic)	20	126.33	5.09
Blood Pressure(Diastolic)	20	80.88	5.81
Resting Heart Rate	20	65.88	2.14
Resting Respiratory Rate	20	8.55	0.72
Vital Capacity	20	4.85	0.19

Table 1 reveals that the mean of male yoga practitioners (458.88±49.60) on peak flow. Mean of male yoga Practitioners (126.33±5.09) on systolic blood pressure. Mean of male yoga Practitioners (80.88±5.81) on diastolic blood pressure. Mean of male yoga Practitioners (65.88±2.14) on resting heart rate. Mean of male yoga Practitioners (8.55±0.72) on resting respiratory rate. Mean of male yoga Practitioners (4.85±0.19) on vital capacity.

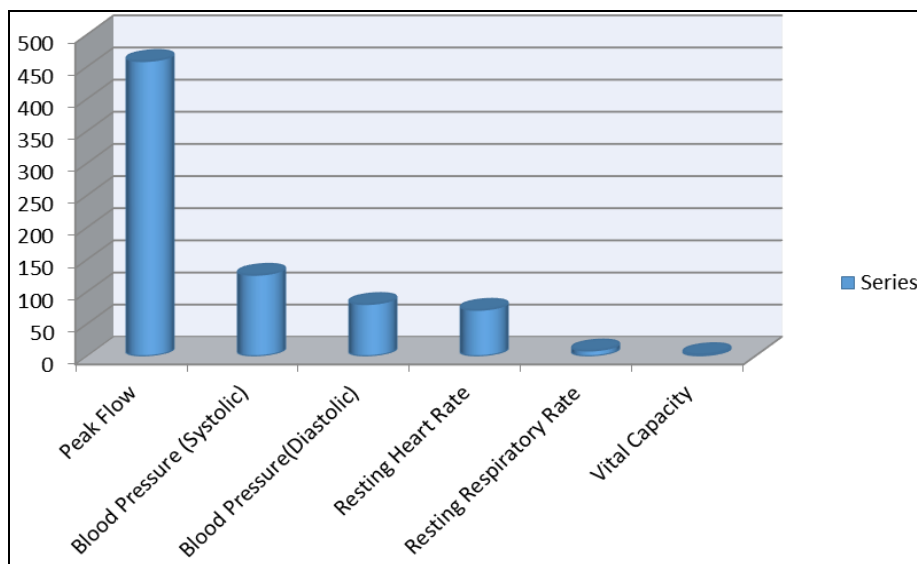


Fig 1.

Above figures shows the mean on Peak Flow, Systolic Blood Pressure, Diastolic Blood Pressure, Resting Heart Rate, Resting Respiratory Rate, Vital Capacity.

Discussion on findings

Peak flow rate for an adult should be 410- 470 and the average value of peak flow rate in yoga practitioners in the present study was 458.83 which should be higher in case of yoga practitioners as they involved a lot in breathing exercises like kapalbhathi, bhastrika, ujjayi, surya bhedi pranayama. The average value of resting systolic blood pressure (120 mm Hg) and the resting systolic blood pressure of yoga practitioners in the present study was found to be above average this may be because of subject's fear of detecting any kind of blood pressure related problems. The average value of resting diastolic blood pressure (80 mm Hg) and the resting diastolic blood pressure of yoga practitioners in the present study was found to be below average. To the surprise of the researcher, Shaer (1981) mentioned that the normal human being has 12- 20 respiration per minute in resting condition, the respiratory rate of the yoga practitioner was found to be at lower side, i.e. 8.55 per minute. This decrease in the respiratory rate may be

attributed to breathing exercises they perform on regular basis. The resting heart rate of yoga practitioners was found in present study is (65.88 beats per minute) heart rate found below the average because they involve continue yogic exercises programme. The research becomes better if we use batter equipment and increase the sample size. The average value of vital capacity is usually 4 to 5 liters in healthy young men. Values of 4.76- 5.05 liters have been reported for a yoga practitioner. The vital capacity of yoga practitioner in the present study was found to be average, since the observed mean was 4.85 liters.

Conclusion

It can be concluded from the study that by doing yogic exercises one can be physiologically efficient but for that, a person have to be regular and dedicated for the yogic exercises as some of the subjects shown lower physiological abilities as compared to average value of certain physiological variables. This study could be more effective if more number of variables and subjects had been selected by researcher, so this research leaves a open end for further scope of research.

Reference

1. Clarke David H. Exercise Physiology, New Jersey: Prentice Hall Inc, 1975.
2. Hewitt, James. Teach Your Self- Yoga, Great Britain: English University press Ltd, 1960.
3. Johnson, Barry L, Nelson Jack K. Practical Measurement for Evaluation in Physical Education, USA: Burgers Publishing Corporation, 1986.
4. Mathews, Donald K, Fox Edward L. The Physiological Basis of Physical Education and Athletics, Philadelphia: W.B. Saunders; Company, 1976.
5. Mathews Donald K. Measurement in Physical Education, Philadelphia: W.B. Saunders Co, 1979.
6. Pare house, Lawarance E, Miller Augustus T. Physiology of Exercise St. Louis: The C.V. Mosby Company, 1963.
7. Ross JS, Wilson KS. Foundation of Anatomy and Physiology, the English Book Society, Churchhill Living Store, 1973.
8. Wilmore Jack H, Costill David L. Physiology of sports and exercise, 3rd Ed; United state, Champaign: Human Kinetics, 2004.
9. Duncan M, Woodfield L, Al-Nakeeb Y. Anthropometric and physiological characteristics of junior elite volleyball practitioners. Br J Sports Med. 2006, 40.
10. Denise Lardner Carmody, John Carmody, Serene Compassion. Oxford University Press US, 1996, 68.
11. Fox L, Edward Bowers W, Richard Foss Merle L. The physiological basis of physical education and athletics. Wm. C. Brown publishers, 1989; 205-210, 243-260, 376-381, 431, 560-566
12. Fox Ira Stuart. Human physiology. Wm. C. Brown publishers, 1996, 409-414, 495-500.
13. Lawrence S. Morihouse; Auguston T, Millar Jr. Physiology of Exercise. Saint Louis: The C.V. Mosby Company, 1976, 225-226.
14. Leavy Jacquie. Gymnastics. wayland publishers limited. 1993, 8.