IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

Effects Of Six Weeks Yogic Practices On Selected Motor Fitness Components In School Level Female Hockey Players

Dr. T. CHITRA, Assistant Professor, Sri Sarada College of Physical Education for Female, Salem

ABSTRACT

The aim of the present study was to investigate the effect of six weeks yogic practices on selected motor fitness components in school-level female hockey players. For this purpose, a sample of forty (N=40) female hockey players of age ranging from 14 to 17 years were selected from Sri Sarada vidyalaya girls higher secondary school, salem, Tamilnadu. They were randomly assigned into two groups: an experimental group and a control group, each consisting of Twenty players. The experimental group participated in a structured six-weeks yogic practices program, while the control group did not engage in any additional training during the study period. All the participants were informed about the objectives and methodology of this study and they volunteered to participate in this experimental study. The study was restricted to the variables: muscular strength and muscular endurance. The collected data were statistically analyzed through analysis of covariance (ANCOVA) to find out the significance difference, if any between the groups. In all case the criterion for statistical significant would set as 0.05 level of confidence. The results of the study showed that there was significant differences exist between experimental group and control group. And also, experimental group showed significant improvement on Muscular Strength and Muscular Endurance compared to control group.

Keywords: Yoga, Hockey, Muscular Strength and Muscular Endurance

INTRODUCTION

Today, Global recognition of Yoga virtually attracts the attention of intellectuals of varied fields including sports. Worldwide, there seems a considerable rise in scientific research in the field of Yoga. Yoga is a science as well as an art of healthy living physically, mentally, morally and spiritually. It is not limited by race, age, sex, religion, cast or creed and can be practiced by those who want to have a more meaningful life. Yoga is about developing harmony between mind and body. Yoga – is a "science of sciences" is too comprehensive in its nature and too profound in its scope of teachings to be fitted into the frame work of any particular philosophy, religion or belief, ancient or modern (Taimni, 2005). Yoga is a psycho-somatic-spiritual discipline for achieving union & harmony between our mind, body and soul and the ultimate union of our individual consciousness with the Universal consciousness (Madanmohan, 2008).Some simple Yoga postures that may be used by beginners with time improve flexibility, strength and endurance (Sequiera, 1999).The purposes of the asanas are to condition the body, which ultimately increase strength, flexibility and endurance. Mobility is defined as the ability to move body structures or parts of the body through the existing range of motion for a functional activity (Kisner C. & Colby L. A., 2007). Improved flexibility is one of the most obvious and quickly achieved effects of regular yoga practice,

since this is based on gradual stretching of muscle and connective tissue around bones and joint (Woodyard C, 2011), static retention of yoga poses and movements of joints throughout the entire existing range of motion (McCall, 2007).More so, these Yoga postures are argued to stimulate body organs, promoting digestion, improving circulation and nervous system functioning (Iyengar, 2005). Asanas are performed standing, sitting, reclining or inverted and may involve forward bending, backward bending, and twisting of the trunk. It has been argued that holding these poses for a prolonged period of time (about 30 seconds or more for each pose) along with controlled breathing may be one of the most important aspects of Yoga exercise. The present research was conducted to fetch out the effect of six weeks of yogic practices on selected motor fitness components in school-level female hockey players.

MATERIAL AND METHODS

The study was conducted on a sample of forty (N=40) female hockey players of age ranging from 14 to 17 years, randomly selected from Sri Sarada vidyalaya girls higher secondary school, salem, Tamilnadu. Further, the subjects were purposively divided into two groups. First group, designated as experimental group (N=20) and the second one as control group (N=20). All the participants were informed about the objectives and methodology of this study and they volunteered to participate in this experimental study. The study was restricted to the variables: muscular strength, muscular endurance. Experimental group have undergone yogic practices for six-weeks by following a sequence of selected yogic asanas i.e. Sarvangasana, Chakra-asana, UtthitaParsvakonasana, ParivrttaTrikonasana, Halasana, Bhujangasana, Dhanurasana, Ustrasana, Gomukasana, Paschimotansana, Ardha Matsyendrasana and Hanumanasan. The experimental group was given Yogic practices of one and half hour morning session daily (excluding Sunday) for a period of six-weeks and no such training was given to control group. Both the groups were take part in the pre-training and post training measurements test for the study. Muscular strength was assessed with the help of Flexed Arms Hang Test; Sit-up test was used to assess the muscular endurance.

STATISTICAL ANALYSIS

The collected data before and after the six-weeks training period on the motor fitness variables, under the influence of yogic practices were statistically analyzed using the dependent 't' test to determine the significant improvements between the pre-test and post-test. The derived results are discussed in the following tables.

Table 1

Analysis of 't' ratio for the pre and post-tests of experimental and control group on Muscular Strength and Muscular Endurance.

Group	variables		Mean	SD	MD	SE	t ratio
Experimental Group	Muscular Strength	Pre-test	15.8	2.2	2.4	0.48	5.00*
		Post-test	18.2	2.0			
	Muscular endurance	Pre-test	45.0	4.9	7.8	1.03	7.57*
		Post-test	52.8	4.6			
Control Group	Muscular Strength	Pre-test	15.6	2.3	0.5	0.47	1.06
		Post-test	16.1	2.1			
	Muscular endurance	Pre-test	44.5	5.1	1.5	1.12	1.34
		Post-test	46.0	5.0			

Significant at 0.05 levels

Table-1 shows the computation of mean, standard deviation and 't' ratio on the selected variables namely Muscular Strength and Muscular Endurance for the experimental group. The obtained 't' ratios for Muscular Strength and Muscular Endurance were 5.00* and 7.57* respectively. The required table value for the degrees of freedom 1 and 19 at the 0.05 level of significance was 2.093. Since the obtained 't' values were greater than the required table value, they were found to be statistically significant for the experimental group. Furthermore, the computation of mean, standard deviation and ’t’ ratio on the selected variables namely Muscular Strength and Muscular Endurance was conducted for the control group. The obtained 't' ratios were 1.06 and 1.34 respectively. The required table value for the degrees of freedom 1 and 19 at the 0.05 level of significance was 2.093. Since the obtained 't' values were less than the required table value, they were found to be statistically insignificant for the control group.

Figure 1: The bar diagram shows the mean pre- and post-test values for Muscular Strength variable in the experimental and control groups.

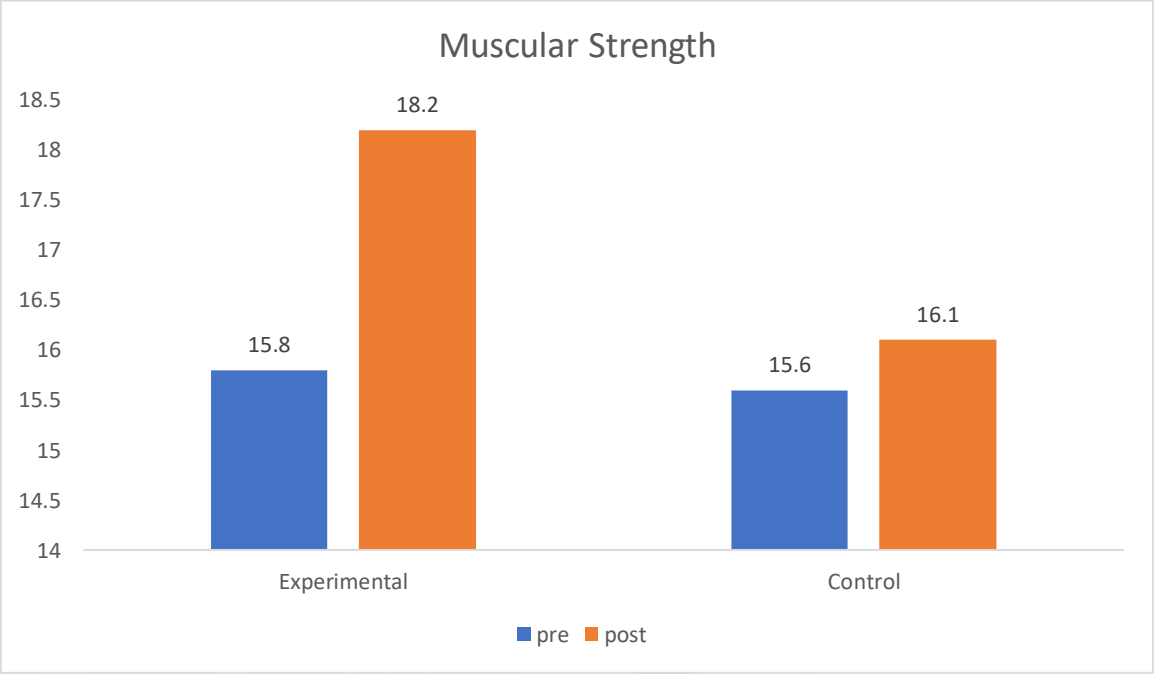
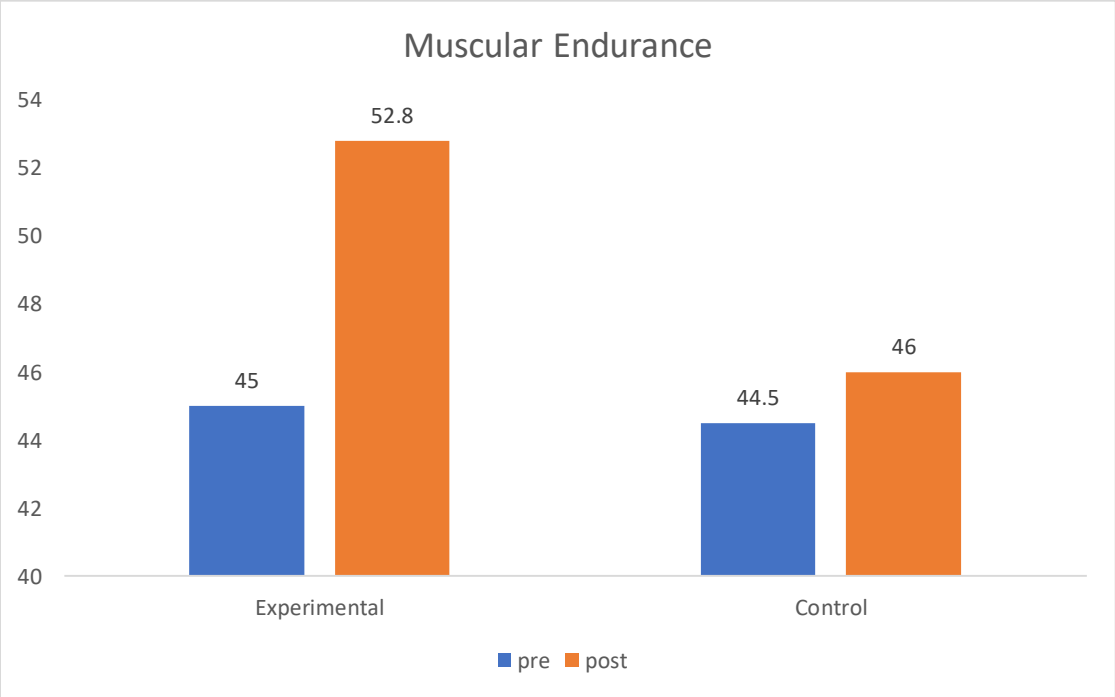


Figure 2: The bar diagram shows the mean pre- and post-test values for Muscular Endurance variable in the experimental and control groups.



DISCUSSION

The present study was structured to find out the effect of six weeks of yogic practices on selected motor fitness components in school-level female hockey players of experimental and control groups with regard to muscular strength and muscular endurance. Results revealed significant differences between pre and post-tests of experimental group in respect to Muscular strength (5.0*), Muscular endurance (7.57*). However, in case of control group, insignificant differences were observed between pre and post-tests. The findings of present study are in line with the study of Singh, A. et al. (2011), they concluded that yoga

asana training improve Muscular Strength and Muscular Endurance. The result with regard to flexibility is also in line with the result of Volga Hovsepian et al. (2013) as they observed that yoga and aerobic training significantly improved flexibility; Maja Petric et al. (2014) also favour this result as he found that regular practice of yoga has a significant effect on body flexibility in young healthy female. The results of present study are partially in line with the study of Shubhangi Damle (2012) as she concluded that yogic exercises and breathing exercises improve flexibility, agility, strength, concentration, lung capacity and speed. Munoru Pauline and Elijah Gitonga Rintaugu (2011) also concluded that yogic practices increase strength and flexibility of females from South West London.

CONCLUSION

It is concluded that six-weeks of yogic practices can significantly improve muscular strength and muscular endurance among school level female hockey players, which ultimately enhances their level of sports performance. Now a days it has been observed that yoga can play a pivotal role in all spheres of life including sports.

REFERENCES

1. Brochu, M., Savage, P., Lee, M., Dee, J., Cress, M., Poehlman, E., Tischler, M. &Ades, P. (2002). Effects of resistance training on physical function in older disabled female with coronary heart disease. Journal of Applied Physiology, 92, 672-678.
2. Damle, S. (2012). Effect of Yogic Practices for Development of Physical Fitness of College Girls. Physical Education, 10 (12), 51-52.
3. Ezhilarasi and Amsanatarajan (2014). Effects of Yogic Practices and Aerobic Exercise on Muscular Strength among College Female Basketball Players. Star physical Education, 2 (2), 1-5.
4. Kisner, C. & Colby, L. A. (2007). Therapeutic exercise: foundations and techniques. (5thedn), Philadelphia: F. A. Davis Company.
5. McCall (2007). Yoga as medicine: the yogic prescription for health & healing. New York: Random house, Inc.
6. Pauline, M. and Rintaugu, E. G. (2011). Effects of Yogic practices on Bilateral Strength and Shoulder and Hip Range of Motion. International Journal of Current Research, 3 (11), 467-470.
7. Petric, M., Vauhnik, R. and Jakovljevic, M. (2014). The Impact of Hatha Yoga Practice on Flexibility: A Pilot Study. Alternative & Integrative Medicine, 3 (2), 160.
8. Singh, A., Singh, S., and Gaurav, V. (2011). Effects of 6-Weeks Yogasanas Training on Agility and Muscular Strength in Sportsmen. International Journal of Educational Research and Technology. Volume 2, Issue 2, 72 – 74.
9. Taimini, I. K. (2005). The science of Yoga. The theosophical publishing house, Adyar Chennai P-6.
10. Volga, H., Marandi, S. M., Kelishadi, R. and Zahed, A. (2013). A Comparison between Yoga and Aerobic Training Effects on Pulmonary Function Tests and Physical Fitness Parameters. Pak J Med Sci, 29 (1), 317-320.