iJRASET
International Journal For Research in Applied Science and Engineering Technology

INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY

Volume: 5 **Issue:** V **Month of publication:** May 2017

DOI:

www.ijraset.com

Call: 08813907089 | E-mail ID: ijraset@gmail.com

International Journal for Research in Applied Science & Engineering Technology (IJRASET)

Effect of Yogic Exercises on the Physical Fitness Components of Handball Players

Dr. Harbans Lal Godara
TGT (P&HE, Kendriya Vidyalaya STPS Suratgarh

Abstract: Yogic exercises not only increase the general strength but also tone up the muscles because these exercises stretch out the muscles and due to their slow stretch and hold nature along with breathing mechanism improves the muscular tone and strength of the muscles. To achieve the purpose of the study Ten weeks yoga training was administered and AAPHER fitness test is framed to find out the minimum physical fitness required to participate in the training programme and also to find out the improvement in Physical fitness after the training programme. The 40 handball players (Boys) who is regularly playing handball in evening at STPS Suratgarh Rajasthan. Their age ranged between 12 – 17 years. Students were given the treatment of selected yogic asana & pranayama for 10 weeks Result shows that the regular practice of yoga improved Physical fitness significantly.

Key words: Yogic Exercises, Physical fitness.

I. INTRODUCTION

The word yoga is derived from the Sanskrit root yuj meaning to bind, join, attach and yoke, to direct and concentrate one's attention on, to use and apply. The third limb of yoga is asana or posture. Asana brings steadiness health and lightness of limb. Prana means breath, respiration by vitality energy or strength. Ayama means stretch extension, expansion, regulation of breath and its restraint. Yogic Practice

In the current study, the yogic practice during supervised sessions was the various types of asanas and pranayama were practiced. During unsupervised sessions, the

yogic practice could have included stretching and rotation exercise.

The most important benefit of yoga is physical and mental therapy. Indians have given great importance to „yoga" and „physical exercises" not only to prevent or cure the physical ailments/diseases but to keep fit also. The great ancient Rishis, Vedasand Purans also have given much importance to physical fitness. The person who is physical fit will be able to carry out the essential of his job without undue fatigue. Fitness is characterized by man's ability to function efficiently with in his potentialities. Fitness implies not only the acquisition of certain physical skills but also the ability to withstand the emergency demands training and competitions. High level of strength is essential to good performance in all-athletic games and in some events strength is of almost important. Greater strength often results in better performance. Its relative significance varies depending on the nature of the particular activity. A person having muscular fitness can carry out his daily routine efficiently and effectively with least effort and strain. Muscular fitness plays an important role in all aspects of athlete's performance improvement. Yogic exercises Yogic practices not only make the internal organs fit but also strengthen the muscles. Yogic exercises increase the general strength and tone up the muscles because these exercises stretch the muscles, due to their slow movement and held position with breathing mechanism improves the muscle tone. Training the word "Training' has been a part of human language since ancient times. It denotes the process of preparation for some task. This process invariably extends to a number of days and even months and years.

Purpose of The Study The purpose of the study is to assess the selected yogic exercises on Physical fitness components of the handball players. To study the effect of yogic exercises on the Physical fitness of the handball players.

Methodology

The AAPHER youth fitness test consists of six tests the first five tests were used to find out the Physical fitness and the last one to indicate the endurance. All the six tests, namely Pull Ups, Bent Knee Sit ups for Sixty Seconds, 4X10 m shuttle run, broad jump, 50m dash, 600 yard run are modified and were used to test 40 handball players. The modified AAPHER youth fitness test were conducted on the handball players, the pre training performance of handball players is recorded. After the training again the AAPHER youth fitness test was administered to find out the improvement in the Physical fitness of the handball players. Test Administration In order to assess the Physical fitness of the subjects the modified AAPHER youth fitness tests were administered are given below. Tests Pull Ups, Bent Knee Sit ups for Sixty Seconds, 4X10 m shuttle run, broad jump, 50m dash, 600 yard run

Volume 5 Issue V, May 2017
ISSN: 2321-9653
International Journal for Research in Applied Science & Engineering Technology (IJRASET)

Wrestling mat Stop watch Yogic exercises The yogic training consists of the following selected yogic exercises,

S.N.	ASANA Position	ASANA
1.	Standing	Suriyanamaskar
		Tadasana
		Trikonasana
		Utkatansana
		Utthita Parsvakonasana
		Cakrasana
2.	Sitting	Yoga Mudra
		Paschimottanasana
		Ardha Matsyendrasana
3.	Kneeling	Vajrasana
4.	Prone	Bhujangasana
		Shalabhasana
		Dhanurasana
5.	Supine	Naukasana
		Sarvangasana
		Halasana
		Savasana

Procedure The modified AAPHER youth fitness Tests were administered to the handball players. The each test item is demonstrated correctly to the handball players and then asked them to do the same. The yogic exercises are also demonstrated correctly and asked them to do the same.

Training Schedule

Week	ASANA Position	Repetition Sets	Rest between asanas	Frequency per week
10 Week	Standing	1 (15 Min.)	30 Sec.	5 Day/ Week
	Sitting	1 (15 Min.)	30 Sec.	
	Kneeling	1 (15 Min.)	30 Sec.	
	Prone	1 (15 Min.)	30 Sec.	
	Supine	1 (15 Min.)	30 Sec.	

Statistical Technique Mean, Standard deviation and t-value were used to compute the data.

Results and Discussions From the data obtained the flowing are tabulated for analysis.

Table-1 Pre and Post-training performance of handball players.

Training		Pull Ups No.	Bent Knee Sit Ups No.	4X10 m shuttle run Sec.	broad jump cm	50m dash Sec.	600m run min
Pre- Training	M	24	28	17	165	9.2	1.2
	SD	3.1	4.1	2.8	3.1	2.6	3.1
Post-Training	M	29	36	15	180	9.0	1.0
	SD	5.1	4.7	3.6	3.8	3.4	4.1
t- Value		9.9*	10.98*	6.25*	5.00*	4.10*	4.97*

Significance at 0.05 level

Table-1 and graph shows the mean scores of pre and post training performance in modified AAPHER youth fitness test. It clearly shows the significance difference in the performance of the handball players in two conditions. It means that the yogic asanas introduced to the handball players are responsible for bringing improvement in the Physical fitness components.

II. CONCLUSIONS

The selected yogic exercises intervention improved the fitness (Physical fitness) of the handball players. The positive and significant effect of yogic exercises on the Physical fitness of the handball players. The selected yogic exercises because of their slow movement and held position improve the muscular tone. This improved muscle tone of the abdominal, lower back, upper back and back & hamstrings is responsible for the improvement of Physical fitness of the handball players. Ten weeks Yoga training is beneficial for improvement in Physical fitness & endurance of handball players.

Recommendations The results of the survey taken of the muscular fitness of the handball players should be great concern to the coaches and trainers in the welfare of the handball players. The results bring out the weakness of the handball players and also suggest the importance of including suitable yogic exercises for the improvement of muscular fitness. A larger sale of study may be conducted on state, national and international handball players and also on different genders for longer periods.

REFERENCES

[1] Anjali Joglekar (1999), “A Study of the Effect of Yogic Exercises for the promotion of Physical Fitness and Badminton skill s of College Girls of Age between 18 to 20 Years.” Masters’ Dissertation in Physical Education, BPCA’s College of Physical Education, University of Mumbai, pp.1- 138.

[2] B K Acharya, et. al. (2010), “Effect of Pranayama(voluntary regulated breathing) and Yogasana (yoga postures) on lipid profile in normal healthy junior footballersInternational Journal of Yoga, 3(2): P 70.

[3] B. Donohue, et.al. (2006), “ Effects of brief yoga exercises and motivational preparatory interventions in distance runners: results of a controlled trial” British Journal of Sports Medicine.January; 40(1): Pp 60–63.

[4] Bandelow S, et.al. (2010) “The effects of exercise, heat, cooling and rehydration strategies on cognitive function in football players.”Scandinavian Journal of Medicine and science in Sport .” Oct; 3: Pp 148-60.

[5] Brechue W.F and Mayhew J L. Upper -body work capacity and 1RM prediction are unaltered by increasing Physical fitness in college football players. Journal of Strength and Conditioning Research. 2009; 23(9): Pp 2477 - 86.

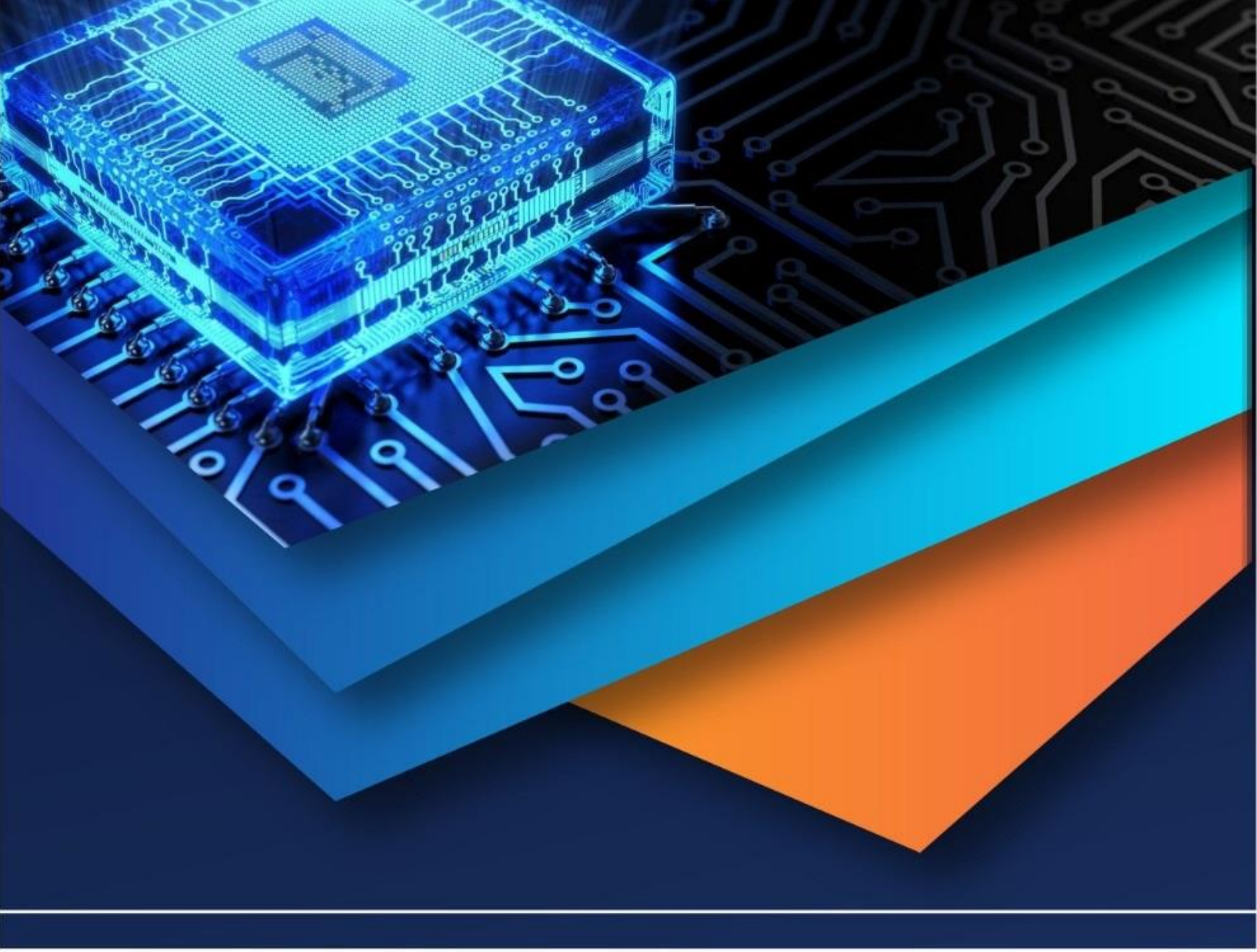
[6] Cowen , V.&Admas t.(2005). “Physical and perceptual benefits of yoga asana practice: results of a pilot study”.Journal of Bodywork and Movement Therapies.9:3:211-219.

[7] Ledoux, M. et al., (1997), “A Comparative Analysis of Weight to Height and Waist to Hip Circumference Indices as Indicators of the Presence of cardiovascular Disease Risk Factors”, Canadian Medical Association Journal , 157(S-1), pp.32-38.

[8] Petrofsky JS., et al., (2005), “Muscle Activity during Yoga Breathing Exercise Compared to Abdominal Crunches”, The Journal of Applied Research, 5(3), pp.501-507.229

[9] Harshika, (Nov,2010), “Advantages of Yoga -Why Yoga Exercise is Best For You”, www.google.co.in.

[10] Tran, M.D., Holly, R.G., Lashbrook, J. et al, Effects of Hatha yoga practice on the health-related aspects of physical fitness. Preventive Cardiology. 2001;4:165–170.



10.22214/IJRASET

45.98

IMPACT FACTOR: 7.129

IMPACT FACTOR: 7.429

INTERNATIONAL JOURNAL FOR RESEARCH

IN APPLIED SCIENCE & ENGINEERING TECHNOLOGY