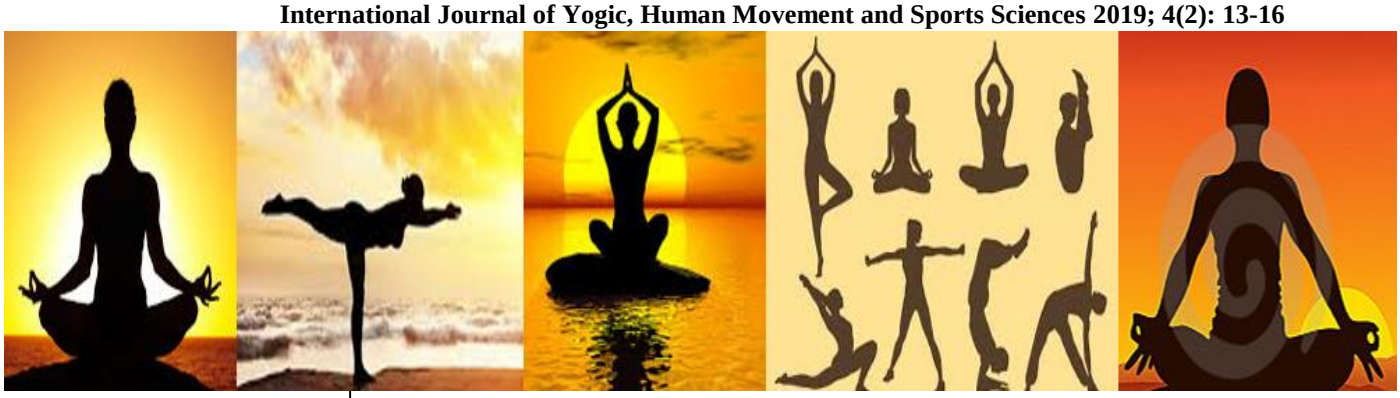
International Journal of Yogic, Human Movement and Sports Sciences 2019; 4(2): 13-16



ISSN: 2456-4419
Impact Factor: (RJIF): 5.18
Yoga 2019; 4(2): 13-16

www.theyogicjournal.com
Received: 13-05-2018
Accepted: 15-06-2018

S Rajasuthakar
Research Scholar, FGAPEY, Ramakrishna Mission Vivekananda Educational and Research Institute, Coimbatore, Tamil Nadu, India

Dr. PJ Sebastian
Professor and Guide, FGAPEY, Ramakrishna Mission Vivekananda Educational and Research Institute, Coimbatore, Tamil Nadu, India

Correspondence
S Rajasuthakar
Research Scholar, FGAPEY, Ramakrishna Mission Vivekananda Educational and Research Institute, Coimbatore, Tamil Nadu, India

Impact of small area games and yogic practices on selected motor fitness variables of intercollegiate male volleyball players

S Rajasuthakar and Dr. PJ Sebastian

Abstract
The purpose of this study was to find out the impact of small area games and yogic practices on selected motor fitness variables of intercollegiate male volleyball players. To achieve the purpose of the study, 72 intercollegiate male volleyball players from Vivekananda college, Agasteeswaram, Kanyakumari, Tamil Nadu, Annai Velankanni College, Kanyakumari and Sivanthi Aditanar College, Nagercoil, Tamil Nadu were selected as subjects (17 to 21 from each college).They were divided into three equal groups in which each group consisted of twenty four subjects (n=24). Group – I and Group –II were the experimental groups such as impact of small area games and yogic practices – SAGYP and flexibility of Small area games Group yogic practices – SAGYP and Group – III served as control group (CG). Group I and II underwent training for a period of 12 weeks. The following are the criterion variables: Impact of small area games, yogic practices and control group. They were tested using Stan dared test methods and instruments before and after training. The collected data were analysed using paired sample t test and ANCOVA. Whenever, the 'F' ratio for adjusted post – test was found to be significant, Scheffe's post hoc test was applied. The level of confidence was fixed at 0.05 level. The findings of the study showed that there were significant improvements in the variables namely flexibility of small area games, yogic practices and control group time between pre-test and post-test of the two experimental groups. Better improvement was found in small area games with yogic practices group. There was no significant difference in any of the selected variables between pre-test and post-test of the control group.

Keywords: Small area games, yogic practices, motor fitness

Introduction
Volleyball is a worldwide popular game and ranks third as a recreational team sport. It is one of the few popular games that originated from the United States. The ball is usually played with the hands or arms, but players can legally strike or push (short contact) the ball with any part of the body. Spiking the ball is easy to hit and has a fair advantage that the other team will not be able to hit back (Sahaya, 2009).
On February 9, 1895, in Holyoke, Massachusetts (USA), William G. Morgan, a YMCA physical education director, created a new game called Mignonette as a pastime to be played preferably indoors and any number of players.
Yoga is the physical, mental and spiritual practices or disciplines which originated in ancient India with a view to attain a state of permanent peace (Bryant 2009) [1]. The term yoga can be derived from either of two roots, "yujir yoga" which means "to yoke (to join or unite)" or "yuj samadhau" which means "to concentrate". (Dasgupta, Surenderanad, 1975). The Yoga Sutras of Patanjali defines yoga as "the stilling of the changing states of the mind". Yoga has also been popularly defined as "union with the divine" in other contexts and traditions (Bryant 2009) [1].
Psychological aspects of yoga Offers essential psychological benefits to the practitioners. Yoga exerts its effects on both the body and the mind. There are many studies which point to yoga's capasity to influence the brain, to increase alpha were activity in the frontal lobes indicating relaxation of the thinking processes, to increase theta wave activity, which seems to indicate enhancing creativity, imagery and insight, and to generally synchronise, harmonise and Integrate brain functioning.

(Swami Sathyananda Saraswathi 1984) Some research findings have shown evidence about the effect of yoga and psychological variables such as anxiety, neuroticism. {Kirkwood *et al*. (2005), Kimberly Bethany (2007), Woolery *et al*; (2004)}.

2. Materials and methods

To achieve the purpose of this study, seventy two intercollegiate male volleyball players from Vivekananda College, Agasteeswaram, Kanyakumari, Tamilnadu, Annai Velankanni College, Kanyakumari and Sivanthi Aditanar College, Nagercoil, Tamilnadu were selected as subjects at random (17 to 21 from each college). They were divided into three equal groups of twenty four each (n = 24). Group – I and Group – II were the experimental groups such as Impact of small area games group with yogic practices – SAGYP and Group – III served as control group (CG) Group I and II underwent training for a period of 12 weeks.

Eight Small area games that lead up to Basketball were twenty one, twenty one (version), sponge Bob basketball, Shoot out, mass basketball, knock out, knock out (variation)and basketball chicken fights. The small area games that lead up to Volleyball following are the game Four – way volleyball (poison), four – way volleyball 2, hit and switch, head and hands, clean house, box ball, bind, man volleyball and small area games that lead up to Tennis were Alleys tennis, aerobic tennis, crazy 8s tennis, short – court mini tennis, toss & catch tennis Yogic practices are asana, pranayama and meditation. The selected yogic practices were given as experimental treatment and the duration of time for each asana and the order of doing are given below. The yogic practices are Padmasana, Vajrasana, Yogamudra, Pachimottanasana, Matsyasana, Shalabasana, Bhujangasana, Vibareethakarani Mudra, Pawanmuktasana, Dhanurasana, Sarvangasana, Halasana, Pathahasthasana, Trikonasana and Shavasana. Pranayamas are Nadisuddhi pranayama, Nadishodhana pranayama, Sitali pranayama, Meditation as Breath Counting Meditation.

The collected data from the three groups prior to and after the 12 week training program on selected criterion variables were statistically Analyzed using paired samples 't' test. In order to compare the effect of treatment on the selected physiological variables among the three groups, analysis of covariance was used. Whenever, the 'F' ratio for adjusted post – test was found to be significant and to determine which of the three Paired means significantly differed, the Scheffe's post hoc test was applied. The level of confidence was fixed at 0.05 levels.

3. Results

Table 1: Analysis of covariance for the per test post-test and adjusted post-test means on flexibility of small area game yogic practices and control group

	SAG	VG	CC	Source of Variance	Sum of Squares	df	Mean Squares	F-ratio
Pre-Test Means	19.64	24.56	26.31	BC	573.44	2	286.72	1.57
				WG	125.80	69	1.82	
Post-Test Means	22.45	28.83	26.33	BC	495.25	2	247.62	132.83•
				VVG	128.62	69	1.86	
Adjusted Post-Test Means	22.45	28.83	26.33	BG	184.13	2	92.08	111.22•
				WG	56.28	68	0.82	

SAG-small area games group
YG-yogic practices group
BG-between group means
CF-control group df-dearus of freedom *- significant
WG-within group means
(Table value for 0.05 level for df 2 & 57=3.16)
(Table value for 0.05 level for df 2 & 56=3.17)

Table 2: Scheffe's test for the difrence between paired means on flexibility

Group I (N=24)	Group II (N=24)	Group III (N=24)	Mean Difference	CI value
22.45	28.83	-	6.38*	0.65*
22.45	-	26.33	3.88*	
	28.83	26.33	2.5*	

*Significant at 0.05 level of confidence

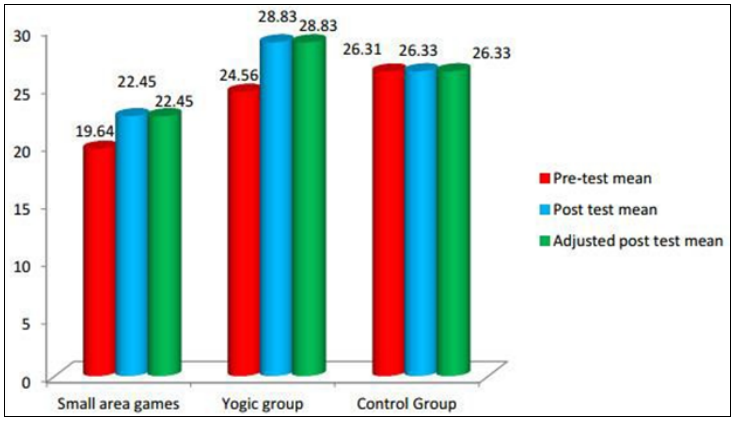


Fig 1: Adjusted post test mean values of small area games yogic practices and control groups on flexibility

Table 3: Analysis of covariance for the per test post-test and adjusted post-test means on leg explosive strength of small area game yogic practices and control group

	SAC	VG	CC	Source of Variance	Sum of Squares	df	Mean Squares	F-ratio
Pre Test Means	19.64	24.56	26.31	BC	573.44	2	286.72	1.57
				PVC	125.80	69	1.82	
Post- Test Means	22.45	28.83	26.33	BC	495.25	2	247.62	132.83°
				WC	128.62	69	1.86	
Adjusted Post Test Means	22.45	28.83	26.33	BC	184.13	2	92.08	1
				WC	56.28	68	0.82	11.22*

SAG-small area games group
YG-yogic practices group
BG-between group means
CF-control group df-dearus of freedom *- significant
WG-within group means
(Table value for 0.05 level for df 2 & 57=3.16)
(Table value for 0.05 level for df 2 & 56=3.17)

Table 4: Scheffe's test for the difrence between paired means on leg explosive strength of small

Group I (N=24)	Group II (N=24)	Group III (N=24)	Mean Difference	CI value
38.08	37.43	-	0.65	0.27
38.08	-	37.12	0.96	
-	37.43	37.12	0.31	

*Significant at 0.05 level of confidence

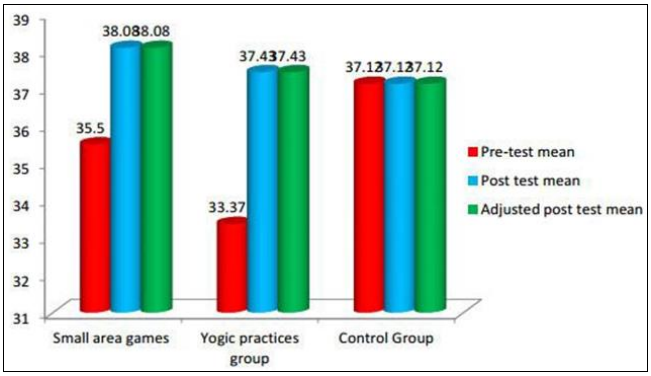


Fig 2: Adjusted post-test mean values of small area games yogic practices and control groups on flexibility

Table 5: Analysis of covariance for the per test post-test and adjusted post-test means on cardiorespiratory endurance of small area game yogic practices and control group

	SAC	VG	CG	Source of Variance	Sum of Squares	df	Mean Squares	F- ratio
Pre-Test Means	2045	1870.8	2087.5	BC	632677.7	2	316338.8	2.49
				WG	624633.3	69	9053.6	
Post- Test Means	2214.6	2125	2087.5	BG	174236.1	2	87118.05	12.3 •
				WG	487395.8	69	7063.7	
Adjusted Post-Test Means	2214.6	2125	2100	BG	278857.02	2	139428.5	42.7 •
				WG	221875.96	68	3262.88	

SAG-small area games group
YG-yogic practices group
BG-between group means
CF-control group df-dearus of freedom *significant
WG-within group means
(Table value for 0.05 level for df 2 & 57=3.16)
(Table value for 0.05 level for df 2 & 56=3.17)

Table 6: Scheffe's test for the difrence between paired means on cardiorespiratory endurance

Group I (N=24)	Group II (N=24)	Group III (N=24)	Mean Difference	CI value
2214.6	2125	-	89.6*	20.71*
2214.6	-	2100	114.6*	
-	2125	2100	25	

*Significant at 0.05 level of confidence

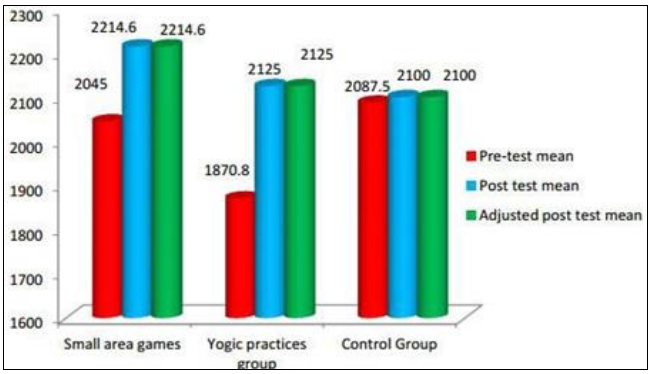


Fig 3: Adjusted post-test mean values of small area games yogic practices and control groups on cardiorespiratory endurance

4. Discussion

The results of 't' – test showed that there was significant difference in both the experimental groups between pre and post tests for all the criterion variables. The results of the ANCOVA showed that there was no significant difference among the pre – test means of small area games and yogic practices groups and control groups. Since the obtained 'F' ratio value was significant and further to find out the paired means difference, the Scheffe's test was employed for every variable. The post hoc analysis showed that there was significant improvement in the criterion variables in both the experimental groups than the control group. Further it was found that better improvement was in experimental group – I.

5. Conclusion

It was found that the control group had insignificant difference than the small area games and yogic practices group on the selected criterion variables of the intercollegiate male volleyball players. It was concluded that all the selected criterion variables namely flexibility, leg explosive strength, cardio respiratory endurance and stress of the intercollegiate male volleyball players showed better improvement in small area game and yogic practices group. Hence through this study it is suggested that the better training method of improve the Physiological variables of the intercollegiate male volleyball players was small area games and yogic practices copaired with the small area games alone.

References

1. Bryant 'The Yoga Sutras of Patanjali: A New Edition, Translation, and Commentary', New York, USA: North Point Press, 2009.
2. 'Eight Limbs of Yoga by Yogani, The Structure and Pacing of Self = Directed Spiritual Practice, AYP series, 2008.
3. George Feuerstein, The Yoga Tradition ', Hohn Press.
4. Hewitt Asana the complete yoga book, 1983.
5. Iyengar BKS, 'Yoga, the path to holistic health', London. Sri Swami Sivananda (2000), the science of pranayama, 1984, 2010.
6. Stone T. The inner Tradition of yoga, 2009.