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Impact of yogic practices on selected health related physical fitness parameters among school level fencers

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Abstract
This study was designed to investigate the Impact of Yogic Practices on Selected Health Related Physical Fitness Parameters among School Level Fencers. To achieve the purpose of the study, thirty fencing players with the age of 11 to 14 years from Fencing Coaching centre, Kanyakumari, Tamilnadu were selected as subject at random. The subjects was randomly assigned to two equal groups (n=15). Group- I underwent yogic practices (YPG) and Group - II was acted as control group (CG). The yogic practice was given to the experimental group for 3 days per week (Monday, Wednesday and Friday) for the period of twelve weeks. The control group was not given any sort of training except their routine work. A pilot study was conducted to assess the initial capacity of the subjects in order to fix the load. The Health Related Physical Fitness muscular strength, (sit-ups) flexibility (sit and reach) before and after training period. The data collected from the subjects was statistically analyzed with't' test to find out significant improvement if any at 0.05 level of confidence. The result of the Health Related Physical Fitness Parameters speculated significant improvement due to influence of yogic practices with the limitations of (diet, climate, life style) status and previous training. The result of the present study coincide findings of the investigation done by different experts in the field of sports sciences. Yogic practices group significantly improved muscular strength and flexibility School Level Fencers.

Keywords: yogic practices, muscular strength and flexibility

Introduction

Yogic practice

The word "Yoga" is derived from the Sanskrit root "Yuj" which means union, joining, harnessing, contact, or connection. It is union between the individual self and the universal self. It is the fusion of a healthy body with a disciplined mind for the purpose of spiritual development. Yoga is also blissful contact with the supreme element, higher than the highest of the known elements. It is the harnessing of one's inherent inner power, as well as the wider natural forces from which one have emerged. Yoga is an inseparable part of the Indian life and culture. It has come down to us from antiquity with an unbroken tradition. Integration encompasses putting together and controlling the same judiciously. This is consistent with the definition of Yoga in "Bhagavad Gita" which says, "Smatvameva Yoga Uchyate" that is equanimity is called Yoga. It means that yoga remains equipoise in success and failure, gain and loss, victory and defect etc. The term 'Samatva' may also be translated as equilibrium, which leads to harmonious development of the physical, mental and spiritual aspects of human personality. Equanimity and equilibrium are thus the essential traits of Yoga. They help in the Skillful performance of an action. Yoga refers to traditional physical and mental disciplines originating in India. The word is associated with meditative practices in Hinduism, Buddhism and Jainism. Within Hinduism, it also refers to one of the six orthodox (āstika) schools of Hindu philosophy, and to the goal towards which that school directs its practices. (Schell *et al*; 1994).

Methods

Experimental Approach to the Problem In order to address the hypothesis presented herein, we selected 30 School Level Fencers. Age groups (11-14) from Fencing Coaching centre, Kanyakumari, Tamilnadu were selected as subject at random. The subjects were randomly assigned into two equal groups namely, yogic practices group (YPG) (n=15) and Control group (CG) (n=15). A pilot study was conducted to assess the initial capacity of the subjects in order to fix the load. The respective training was given to the experimental group the 3 days per weeks (alternate days) for the training period of twelve weeks. The control group was not given any sort of training except their routine.

Design

The evaluated physical parameters were muscular strength was assessed by sit-ups, flexibility was assessed sit and reach and the unit of measurement was in counts and cm. The parameters were measured at baseline and after 12 weeks of yogic practices were examined.

Training programme

The training programme was lasted for 45 minutes for session in a day, 3 days in a week for a period of 12 weeks duration. These 45 minutes included 8 loosening Practices, yogic practices for 30 minutes and 7 minutes relaxation. The volume of yogic practices is prescribed based on the number of sets and repetitions. The equivalent in yogic practices is the length of the time each action in total 3 day per weeks (Monday, Wednesday and Friday).

Asanas

Table 1

1.	**Padmasana**	18 mints
2.	Paschimottanasana	
3.	matsyasana	
4.	Ardha matsyendrasana	
5.	Bhujan gasana	
6.	sarvangasana	
7.	Dhanurasana	
8.	Halasana	
9.	Trikonasana	
10.	Savasana	
Pranayama		
1.	Nadi suddhi	07 mints
2.	Ujjayi	
3.	Sitali	
Meditation		
1.	Observing the breath	05 mints

Statistical Analysis

The collected data before and after training period of 12 weeks on the above said variables due to the impact of yogic practices was statistically analyzed with 't' test to find out the significant improvement between pre and post-test. In all cases the criterion for statistical significance was set at 0.05 level of confidence.

Table 2: Computation of 'T' Ratio on Selected Yogic Practices Selected Parameters among School Level Fencers. On Experimental Group and Control Group

Group	Variables		Mean	N	Std.Deviation	Std.error	t ratio
Experimental group	muscular strength	Pre test	30.46	15	1.84	1.03	10.25*
		Post test	33.20	15	2.24		
	flexibility	Pre test	29.53	15	5.39	1.82	4.89*
		Post test	38.46	15	4.29		
Control group	muscular strength	Pre test	29.80	15	1.69	0.30	0.22
		Post test	29.73	15	2.15		
	flexibility	Pre test	29.53	15	4.29	0.11	0.56
		Post test	29.60	15	4.48		

*Significant level 0.05 level degree of freedom (2.14, 1 and 14)

Table I reveals the computation of mean, standard deviation and't' ratio on selected Health Related Physical Fitness and Psychological Parameters namely muscular strength, flexibility and anxiety, stress. The obtained't' ratio on muscular strength, flexibility and anxiety, stress. Were 10.25, 4.89, and 9.13, 9.25 respectively. The required table value was 2.14 for the degrees of freedom 1and 14 at the 0.05 level of significance. Since the obtained't' values were greater than the table value it was found to be statistically significant.

Further the computation of mean, standard deviation and't' ratio on selected Health Related Physical Fitness and Psychological Parameters namely muscular strength, flexibility and anxiety, stress. The obtained't' ratio on muscular strength, flexibility and anxiety, stress. Were 0.22, 0.56, and 0.64, 0.88 respectively. The required table value was 2.14 for the degrees of freedom 1and 14 at the 0.05 level of significance. Since the obtained't' values were lesser than the table value it was found to be statistically not significant.

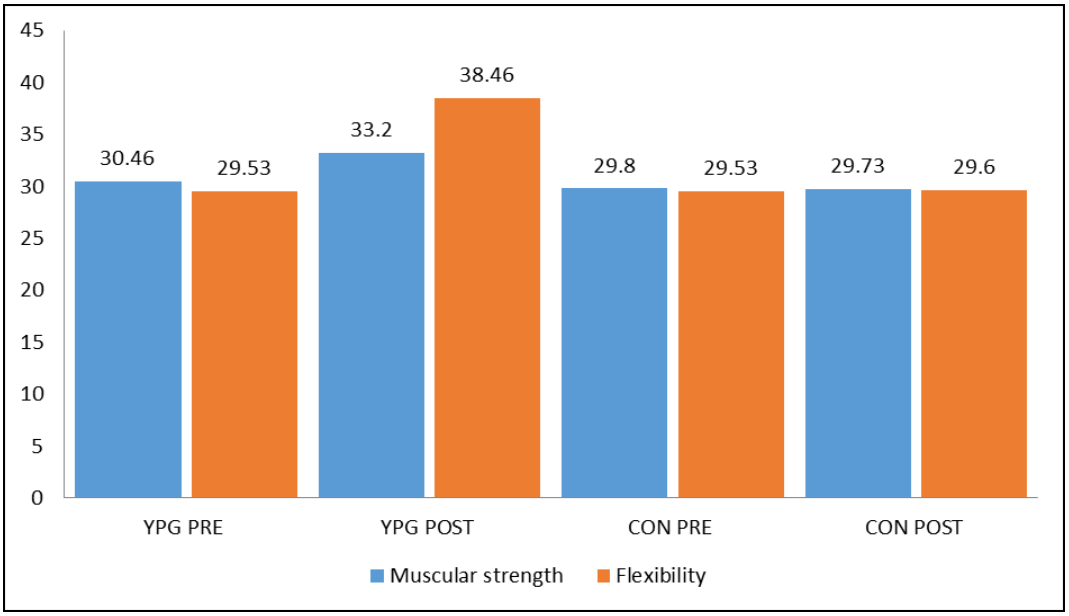

Fig 1: Bar diagram showing the mean value on Health Related Physical Fitness Parameters among School Level Fencers on experimental and control group

Discussion Findings

The present study experimented the impact of yogic practice on Health Related Physical Fitness Parameters among School Level Fencers. The result of the study indicated that the yogic practice improved the Health Related Physical Fitness Parameters such as muscular strength and flexibility the findings of the present study had similarity with the findings of the investigations referred in this study. However, there was a significantly changes of subjects in the present study the muscular strength and flexibility was significantly improved of subject in the group may be due to the in yogic practice. Ahilan, (2012) [1]. Effect of Asana and Pranayama on physiological variables. Chidambara Raja.S (2010) [2] "Effect of Yogic Practice and Physical Fitness on Flexibility, Anxiety and Blood Pressure. Rajkumar. J, (2010) the Impact of Yogic Practices and Physical Exercises on Selected Physiological Variables among the Inter-Collegiate Soccer Players. From of result of the present study, it is speculated that the observed changes in muscular strength and flexibility may properly designed yogic practice which are suitable for among School Level Fencers.

Conclusions

1. It was concluded that 12 weeks twelve weeks yogic practices significantly improved the muscular strength and flexibility among School Level Fencers.
2. Yogic practices is one among the most appropriate means to bring about the desirable changes over Health Related Physical Fitness Parameters among School Level Fencers. Hence, suggested that coaches and the experts deal with College Level Fencers to incorporate. Yogic practices as a component in their training programme.

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