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Impact of Yogic Practices on Selected Health Related Fitness Parameters of Tribal Students

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Abstract: This study investigated the impact of yogic practices on selected health related fitness parameters of Tribal students. To achieve the purpose of the study, 30 tribal students were selected from N.S.Iya memorial higher secondary school, Ketti Palada, Nilgiris District. The subjects were randomly assigned to two equal groups (n=15). Group- I underwent Yogic practices (YTG) and group - II was acted as a control group (CG). Yoga training was given to the experimental group for 3 days per week (Monday, Wednesday and Friday) for a period of twelve weeks. The control group was not given any sort of training except their routine work. The health related fitness parameters namely muscular strength (measured by one minute sit ups test) and flexibility (measured by sit and reach test) were assessed before and after the training period. The data collected from the subjects was statistically analyzed using 't' test to find out significant improvement if any at 0.05 level of confidence. The result of the muscular strength and flexibility speculated significant improvement due to the influence of Yogic practices with the limitations of diet, climate, lifestyle status and previous training. The result of the present study coincides with the findings of the investigation done by different experts in the field of sports sciences. Yogic practices significantly improved muscular strength and flexibility of Tribal students.

Key Words: Yogic Practices, Muscular Strength, Flexibility, Tribal

Introduction

Yoga originated in India thousands of years ago, is a method of learning that aims to attain the Unity of mind, body, and spirit through three main Yoga structures: exercise, breathing, and meditation [1-3]. Yoga plays a most vital role in balancing equilibrium between your mind, body and soul. Yoga is a discipline that seers and saints have been practicing since ancient times to bring flexibility to the spine and joints, to keep the muscles of the body pliable and youthful, increase circulation in arteries and strengthen internal organs. And yet, yoga is so much more than this. Yoga has been said to help strengthen the power of concentration, to banish constipation, to relieve stomach disorders, improve muscle coordination and reduce excess body fat. Yoga has also been said to strengthen the mind-body connection, bring calmness and relaxation to mind, enhance self-confidence, strengthen self-discipline and self-resolve, reduce stress anxiety and increase vitality and energy throughout the body. Evidently, it would appear that yoga has extensive benefits and can help us to be a more balanced, relaxed, focused, efficient and effective person.

Methods

Experimental Approach to the Problem

In order to address the hypothesis presented herein, we selected 30 Tribal students were selected from N.S.Iya memorial higher secondary school, Katti Palada at The Nilgiris. The subjects were randomly assigned into two equal groups namely, Yogic practices group (YTG) (n=15) and Control group (CG) (n=15). 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 health related fitness parameters were a muscular strength was assessed by sit ups and the unit of measurement was in counts and flexibility was assessed by sit and reach test and the unit of measurement was in centimetre. The parameters were measured at baseline after 12 weeks of Yogic practices were examined.

Training programme

The training programme was lasted for 45 minutes for the session in a day, 3 days in a week for a period of 12 weeks duration. These 45 minutes included asana for 30 minutes, 10 minutes pranayama practices and 5 minutes meditation. The equivalent in yogic practices is the length of the time each action in total 3 days per weeks (Monday, Wednesday and Friday).

Statistical Analysis

The collected data before and after a 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. (P < 0.05)

Table – 1

Computation of ‘t’ ratio on selected health related fitness parameters of tribal students in experimental group and control group (Scores in numbers)

Group	Test		Mean	N	Std. Deviation	Std. Error Mean	T ratio
EXPERIMENTAL GROUP	Muscular strength	Pre test	22.46	15	3.50	0.33	6.85*
		Post test	24.73	15	3.39		
	flexibility	Pre test	15.48	15	1.36	0.07	12.23*
		Post test	16.46	15	1.32		
CONTROL GROUP	Muscular strength	Pre test	12.66	15	2.63	0.17	1.14
		Post test	12.86	15	2.55		
	flexibility	Pre test	13.51	15	15.11	0.02	1.00
		Post test	13.53	15	1.49		

*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 fitness parameters namely muscular strength and flexibility of experimental group.

students in experimental and control group (Scores in numbers).

The obtained ‘t’ ratio on muscular strength and flexibility were 6.85 and 12.23 respectively. The required table value was 2.14 for the degrees of freedom 1 and 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 fitness parameters namely muscular strength and flexibility of control group. The obtained ‘t’ ratio on muscular strength and flexibility were 1.14 and 1.00 respectively. The required table value was 2.14 for the degrees of freedom 1 and 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.

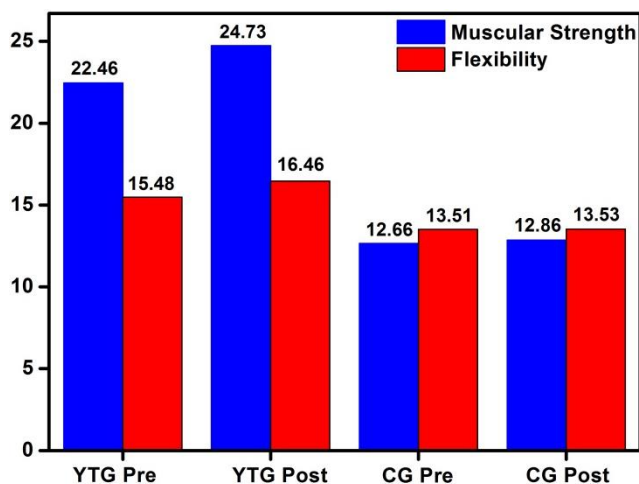


Figure – 1 Bar diagram showing the mean value of selected health related fitness parameters of tribal

3 Discussion and Findings

The present study experimented the impact of twelve weeks yogic practices on the selected health

related fitness parameters of the Tribal students. The results of this study indicated that a yogic practice is more efficient to bring out desirable changes over the muscular strength and flexibility of the Tribal students. The finding of the present study had similarity with the findings of the investigators referred in this study. Amandeep et al., (2011) provide more evidence to support the beneficial effect of yoga asana training on agility and muscular strength. Prosenjit et al., (2015) concluded that the yogasana and dynamic stretching found effective for development of flexibility component on school children because Significant difference was found in Sit and Reach Test in case of flexibility of both the groups after 6 weeks of treatment and also it can be concluded that yogasana was slightly better than the dynamic stretching exercise for the school going children. Ramesh et al., (2014) demonstrated that due to the effect of twelve weeks of yogic practices the selected physical fitness components such as flexibility, agility, muscular endurance and cardio-respiratory endurance of school girls are significantly improved.

From of result of the present study, it is speculated that the observed changes in muscular strength and flexibility may properly designed yogic practices.

4. Conclusions

It was concluded that twelve weeks yogic practices significantly improved the muscular strength and flexibility of the tribal students. Yogic practices are one among the most appropriate means to bring about the desirable changes in health related fitness parameters of tribal students.

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