

Effect of yogic package on flexibility and muscular endurance of sports college athlete

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Abstract- The purpose of the study was to find out the effect of the yogic package on flexibility and muscular endurance on sports college athlete. For this purpose, 50 subjects were selected by random sampling technique and after the pre-test, all the subjects were scattered into two equal groups randomly i.e. experimental group and control group (n=25 in each group). The experimental group underwent eight weeks of yogic package program whereas the control group was not given any kind of training. Pre-test and post-test were applied to get the data from both groups. The difference between groups was analyzed by applying a t-test for the significant differences at 0.05 levels. The findings of the test showed the significant value of the t-ratio for selected variables in the experimental group. The results were found significant. The findings of the study revealed that the eight weeks yogic practice program is very beneficial to increase the flexibility and muscular endurance of sports college athlete.

Keywords: flexibility, Muscular Endurance, Sports College athlete, yogic Package.

INTRODUCTION:

Physical fitness is fundamentally important to all human beings, (Sandhyarani P. S. & A. Shenbagavalli, n.d.) Yoga is an ancient practice that has been shown to have numerous health benefits, including improved flexibility, muscular endurance, and balance. Yoga training has been associated with a variety of positive effects on physical performance and wellbeing. (Polsgrove et al., 2016) The purposes of the asanas are to condition the body, which ultimately increase endurance, flexibility and endurance. (Tarsem Singh Dr. Amandeep Singh Sandeep Kumar, 2015)

Successful sport performances in high-level competitions require harmony among the given athlete's physiological, psychological, and interpersonal capacities and readiness, with mindfulness potentially affecting an athlete's ability to achieve peak performances. (Nien et al., 2020) Athletes, in particular, require a high level of physical fitness to perform at their best. As such, it has become an increasingly popular form of exercise among athletes. Muscular endurance is the ability to continue contracting a muscle, or group of muscles, against resistance. 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, 2011)

Sports college athlete need to maintain a high level of physical fitness to perform well in their respective sports. However, many student athletes face challenges like stress, anxiety, and injuries, which can have an effect on their physical fitness. (Kumar & Sakthiganavel, 2018; Woodyard, 2011) Therefore, it is essential to explore the potential benefits of yoga and its right method in improving the physical fitness of sports college athlete.

The aim of the study is to investigate the effect of a yogic practice on the flexibility and muscular endurance of sports college athlete. The study will be conducted using a randomized control group design, where one group practiced the yoga package, and the other group will act as the control group. The yogic package will consist of a set of yoga asanas and pranayama exercises designed to improve flexibility and muscular endurance.

The study's findings will provide an insight into the potential benefits of yoga in improving the physical fitness of sports college students. It is hoped that the results of this study will encourage sports college students to adopt yoga as a regular exercise routine and promote the inclusion of yoga in physical education programs. Ultimately, this could lead to improved physical fitness and better overall health outcomes for sports college students.

The results of the study will provide an understanding into the potentials of yoga in fitness of sports athletes. It is hoped that the findings of this study will encourage college athletes to incorporate yoga into their regular workout schedules and it will also push its inclusion in physical education programmes. At last, this might result in more physically fit college athletes and better general health results.

METHOD AND PROCEDURE

50 subjects randomly selected from Sports university and Gursevak physical college, Patiala, in the age group of 18-23 years, from B.P.Es. and B.P.Ed courses. post, control-experimental group design was used for the study. The experimental group received an intervention of yogic package for 5 days a week for 8 weeks while the control group didn't receive any intervention. Flexibility was measured by "sit & reach test" and muscular strength was measured with the help of squat and push-up test.

YOGIC PACKAGE:

The term "yogic package" can refer to a set of yoga practices or techniques that are designed to promote physical, mental, and spiritual well-being. A yogic package can include a combination of Asanas and Pranayama. For this study yogic package contains Surya Namaskar, Naukasana, pawanuktasana, Chaturang Dandasana, Bhujangasana, Chakrasana, Halasana, paschimotansana, Dhanurasana, Bhramari Pranayama, shavasana. It was practiced for 40 minutes for 5 days upto 8 weeks.

DATA ANALYSIS

The main purpose of the investigator was to know the effect of the yogic practices on the flexibility and muscular endurance of sports college athletes. For this purpose, a yogic practice schedule for 8 weeks was drawn up. Analysis of the study was divided into two test phases i.e. pre-test before the start of the experiment and post-test after the 8 weeks training on both the groups i.e. experimental and control groups. The results were analyzed through the jamovi statistics software 2.3.26 version. In this case, the t-ratio was computed between pre and post-tests to find out whether there existed any significant difference between the mean scores after the experiment.

RESULT AND DISCUSSION

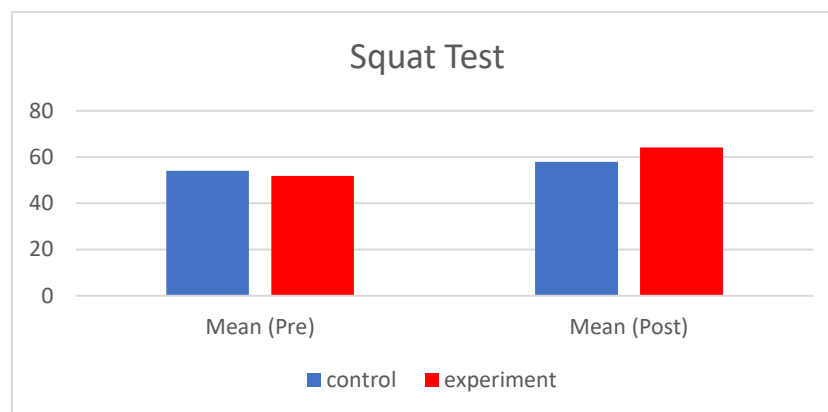
While doing a thorough analysis of data procured, the researcher employed t-test to determine the significant difference in different groups among Pre and Post-test of the selected variables as discussed one after another (1-3) below.

Endurance Test

Let us have a look at the below mentioned table for the experimental and control group showing mean and standard deviation values:

Table-1: Endurance Test (Squat Test)

Group	N	Mean (Pre)	SD (Pre)	Mean (Post)	SD (Post)	t-ratio	P value	df
Control	25	54	20.6	57.9	20.1	1.174	0.684	48
Experimental	25	51.8	17.3	64.1	17.1			



Graph-2

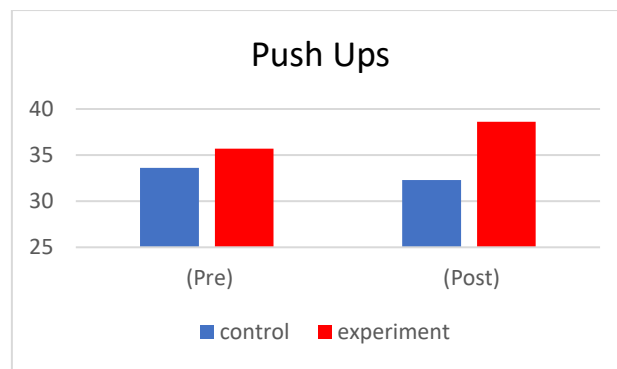
In the table 1 and figure 1, shows that the t-ratio is statistically significant between in experimental group and the control on endurance test. It shows that there is significant difference in the mean score of experimental groups i.e. 64.1 and mean score of control group i.e. 57.9. so that it can be inferred that students who had formal training in Yoga package practices have significantly endurance test as compared to those who did not have any training of Yoga package practices.

Endurance Test (push up Test)

Let us have a look at the below mentioned table for the experimental and control group showing mean and standard deviation values:

Table-2: Endurance Test (Push up Test)

Group	N	exc	SD (pre)	Mean (Post)	SD (post)	t-ratio	P value	df
Control	25	24.8	7.08	26.8	5.24	4.304	0.604	48
Experiment	25	25.7	7.02	34.3	5.20			

**Graph-2**

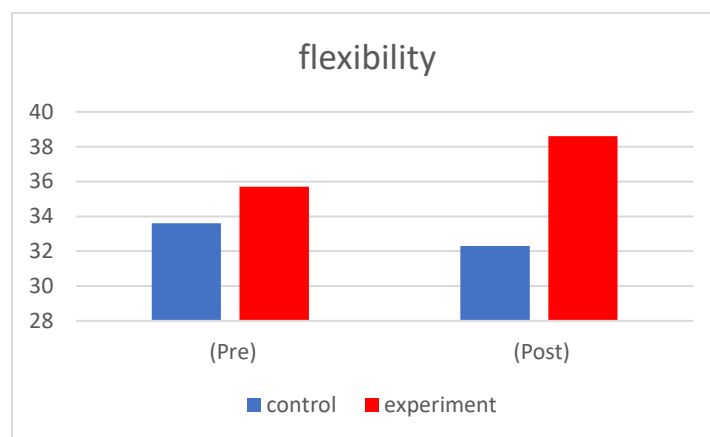
In the table 2 and figure 2, shows that the t-ratio is statistically significant between in experimental group and the control on endurance test. It shows that there is significant difference in the mean score of experimental groups i.e. 34.3 and mean score of control group i.e. 26.9. so that it can be inferred that students who had formal training in Yoga package practices have more significant result of endurance test as compared to those who did not have any training of Yoga package practices.

Flexibility Test (Sit & Reach Test)

Let us have a look at the below mentioned table for the experimental and control group showing mean and standard deviation values:

Table-3: Flexibility Test (Sit & Reach Test)

Group	N	Mean (Pre)	SD (pre)	Mean (Post)	SD (post)	t-ratio	P value	df
Control	25	33.6	5.53	32.3	5.63	4.304	0.604	48
Experimenta	25	35.7	4.57	38.6	4.69			

**Graph -3 (Flexibility)**

In the table 3 and figure 3, shows that the t-ratio is statistically significant between in experimental group and the control on endurance test. It shows that there is significant difference in the mean score of experimental groups i.e. 39.4 and mean score of control group i.e. 33.4. so that it can be inferred that students who had formal training in Yoga package practices have more significant result of endurance test as compared to those who did not have any training of yoga package.

There is a significant improvement in flexibility and muscular endurance of athletes by practicing yoga practices. Woodyard research also suggests that yogic practices enhance muscular strength and body flexibility, promote and improve respiratory and cardiovascular function, promote recovery from and treatment of addiction, reduce stress, anxiety, depression, and chronic pain, improve sleep patterns, and enhance overall well-being and quality of life. (Woodyard, 2011)(Kumar & Sakthiganavel, 2018)

CONCLUSION:

The aim of this study was to investigate the impact of yogic package on flexibility and muscular endurance. Our findings suggest that the practice of yoga as part of training enhances the components of fitness that are the essential components of sports performance. Thus, the practice of yoga may provide an additional training option to enhance performance. Future studies in this area should explore the impact of yoga training on specific components of fitness in relation to specific sports of an athletes. In this way, it may be possible to demonstrate the impact of yoga on sports performance. There were many limitations of the study.

The present study was conducted only on the college athlete population; the other age groups and national or state level athlete were not included in the study. The sample size of the present study was small. It is suggested that in future research sports athletes should be taken from specific game to check the impact on physical variables more clearly. Sample size and big geographic area can be covered in future research.

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