Concurrent Strength Training with Yogasana Practices on Power Parameter of Women Hockey Players

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Abstract

The purpose of the present study was to investigate the efficacy of concurrent strength training with yogasana practices on power parameter of women hockey players. To achieve the purpose of the study thirty women hockey players were selected from Karaikudi, Tamilnadu, India during the year 2019. The subject's age ranges from 18 to 25 years. The selected subjects were divided into two equal groups consists of 15 women players each namely experimental group and control group. The experimental group underwent combined concurrent strength training and yogasana practices programme for six weeks. The control group was not taking part in any training during the course of the study. Leg explosive power was taken as criterion variable in this study. The selected subjects were tested on leg explosive power was measured through standing broad jump. Pre-test was taken before the training period and post- test was measured immediately after the six week training period. Statistical technique't' ratio was used to analyse the means of the pre-test and post test data of experimental group and control group. The results revealed that there was a significant difference found on the criterion variable. The difference is found due to combined concurrent strength training and yogasana practices given to the experimental group on leg explosive power when compared to control group.

Keywords: *concurrent strength training, yogasana practices, leg explosive power and 't' ratio.*

Introduction

Explosive strength is essential factor that can be determined the performance of the hockey players during the particular actives. Concurrent strength training made a unique method for promote the strength of an individual. Yoga is a great soul of the Universe. It can promote the social well being through limps of yoga (Asanas, Pranayama, Kriyas, Mudras and Meditations). To practising yoga regularly it can make you into sound body and sound mind. Yoga is the costless permanents treatment for more diseases, alaguraja, k[1]. It is a practical holistic philosophy designed to bring about profound state as well is an integral subject, which takes into Consideration man as a whole, alaguraja, k. et.al[2].

One can start practicing Yoga at any given moment of time and you may start with meditation or directly with pranayama without even doing the asanas (postures), alaguraja, k. et.al,[3]. The science of Yoga Nidra is based on the receptivity of consciousness. When consciousness is operating with the intellect and with all the senses, by making an individual think that he or she is awake and aware, but the mind is actually less receptive and more critical, yoga, p. et. al.,[4]. Training is a chain process that can be able to attain certain needs of the person's goal, alaguraja, k[5]. In the sports world, physical education is the most essential aspect due to the fact physical schooling increases the performance and the effectiveness of the sports, alaguraja, k. et.al.,[6]. Today, sports have become a part and parcel of our culture. It is being influenced and does influence all our social institutions including education, economics, arts, politics, law, mass communication and even international diplomacy, alaguraja, k. et.al,[7]. The sports training can produce some physical fitness, Physiological and psychological benefits to the person and attain performance related task. It's also promoting the individual overall wealth to the sports person, alaguraja, k.[8]. Yoga is a methodical effort towards self-perfection by the development of the potentialities latent in the individual, alaguraja, k. et.al,[9]. Today's there is an escalating emphasis on appearing smarter, feeling better and living longer. In order to

achieve these ideals as, scientific evidence tells us that one of the keys is high fitness and exercises, alaguraja, k. et.al,[10]. Asanas is a limp of Yoga practice it can make some health related gains to the individual who involved in yogasana practice regularly. Asanas can be used upon the needs of the person. It's a scientific process the person must be follow the basic principles yogasana practice, alaguraja, k.[11]. Yoga is a practical aid, not a religion and its techniques may be practiced by Buddhist, Jews, Christians, Muslims, Hindus and Atheist alike. Yoga is union for all, selvakumar, k. et.al,[12]. Yogic action, or inner technique, such as breath control, parthasarathy., s. et.al,[13].

Research Methodology

Selection of subjects

The purpose of the study was to find out the combined effect of concurrent strength training with yogasana practices on power parameter of women hockey players. To achieve this purpose of the study, thirty women hockey players were selected as subjects at random. The age of the subjects were ranged from 18 to 25 years.

Selection of variable

Independent variable

- Combined concurrent strength training and yogasana practices

Dependent variable

- Leg Explosive Power

Experimental Design and Implementation

The selected subjects were divided into two equal groups of fifteen subjects each, such as a concurrent strength training and yogasana practices group (Experimental Group) and control group. The experimental group underwent combined concurrent strength training and yogasana practices for five days per week for six weeks. Control group, which they did not undergo any special training programme apart from their regular physical activities as per their curriculum. The following power parameter namely leg explosive power was selected as criterion variable. All the subjects of two groups were tested on selected criterion variable leg explosive power was measured through standing broad jump at prior to and immediately after the training programme.

Statistical technique

The't' test was used to analysis the significant differences, if any, difference between the groups respectively.

Level of significance

The 0.05 level of confidence was fixed to test the level of significance which was considered as an appropriate.

Analysis Of The Data

The significance of the difference among the means of the experimental group was found out by pre-test. The data were analysed and dependent 't' test was used with 0.05 levels as confidence.

Table I: Analysis of t-ratio for the pre and post tests of experimental and control group on Leg explosive power (Scores in mm Hg)

Variables	Group	Mean		Degree of freedom	't' ratio
		Pre	Post		
Leg explosive power	Control Group	1.75	1.76	14	0.39
	Experimental Group	1.76	1.82	14	16.99*

**Significance at 0.05 level of confidence.*

The Table-I shows that the mean values of pre-test and post-test of the control group on leg explosive power were 1.75 and 1.76 respectively. The obtained 't' ratio was 0.39, since the obtained 't' ratio was less than the required table value of 2.14 for the significant at 0.05 level with 14 degrees of freedom it was found to be statistically insignificant. The mean values of pre-test and post-test of the experimental group on leg explosive power were 1.76 and 1.82 respectively. The obtained 't' ratio was 16.99* since the obtained 't' ratio was greater than the required table value of 2.14 for significance at 0.05 level with 14 degrees of freedom it was found to be statistically significant.

Result of the Study

The result of the study showed that there was a significant difference between control group and experimental group in systolic blood pressure. It may be concluded from the result of the study that experimental group improved in leg explosive power due to six weeks of combined concurrent strength training and yogasana practices.

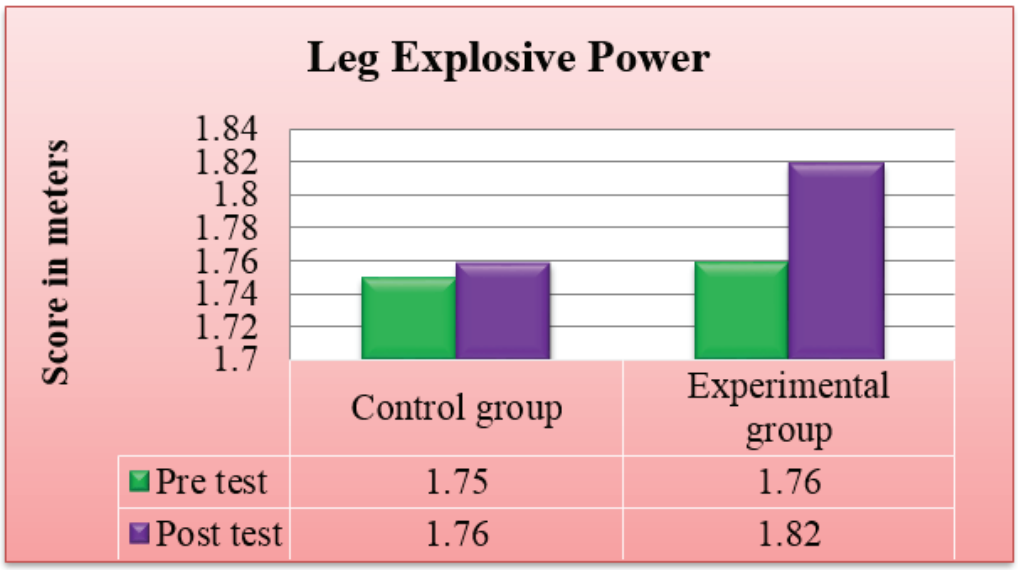

Figure-1: Bar Diagram Showing the Pre and Post Mean Values of Experimental and Control Group on Leg explosive power

Discussions on Findings

The result of the study indicates that the experimental group, namely combined concurrent strength training and yogasana practices group had significantly improved the selected dependent variable, namely Leg explosive power, when compared to the control group. It is also found that the improvement caused by combined concurrent strength training and yogasana practices when compared to the control group.

Conclusion

On the basis of the results obtained the following conclusions are drawn,

1. There was a significant difference between experimental and control group on leg explosive power after the training period.

2. There was a significant improvement in systolic blood pressure. However the improvement was in favor of experimental group due to six weeks of combined concurrent strength training and yogasana practices.

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Conflict of Interest: Nil.

Ethical Clearance: With respect to the above said Research Article involving human subjects for which the ethical clearance being sought, I am to state that I have gone through the "NIMHANS Ethical Guidelines…….Human Subjects" and am aware of the Helsinki Declaration of 1975, as revised in 2000 (5) rules governing the studies involving the human

subjects. I am also aware that these guidelines are strictly to be followed while carrying out the above said research article involving human subjects.

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