

LOOP BAND TRAINING FOR IMPROVING SPEED AND LEG STRENGTH: AN EXPERIMENTAL STUDY

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ABSTRACT

The goal of this research was to determine the impacts of loop band training on speed and leg strength among hockey players. To achieve this purpose to the study twenty college level male hockey players from National Engineering College, Lakshmi Ammal Sports Academy, KR nagar, Kovilpatti, Thoothukudi District, Tamilnadu. India were randomly selected as subjects. Their ages varied from 18 to 23 years old. The participants were divided into two groups: loop band and control groups. At an evening session, this loop band group was treated to loop band practice (for three days a week, Monday, Wednesday, and Friday) for eight weeks. Speed and Leg strength was selected as dependent variable. After the compilation of proper data, it was statistically analyzed by using paired't' test. The significance level was established at 0.05. The findings of this study revealed that loop band workout has a substantial enhancement on speed and leg strength of hockey players.

Keywords: Loop Band Training, Speed, Leg Strength, Hockey Players.

I. INTRODUCTION

An elastic band that is used to strengthen muscles is known as a loop band. They're also often a type of physical therapy, primarily by convalescents recovering from muscular injuries, as well as cardiac rehabilitations to allow for gradual strength re-building. Flexible band training is a sort of physical exercise that focuses on using resistance to cause muscular contractions to increase skeletal muscle strength, anaerobic endurance, and growth. Band strength training, when done correctly, can provide considerable functional benefits as well as improve Increase bone, muscle, tendon, and ligament strength and toughness to improve general health including well. Band training is crucial in sports like Highland Games, shot put, discus throw, and javelin throw. Band resistance training is used by athletes in sports such as rowing, basketball, hockey, and soccer. All sports, not just strength sports, should incorporate band resistance training into their conditioning programmes. Athletes of all sports will benefit from increased speed, strength, agility, and physical endurance. Athletic performance necessitates a greater degree of muscular contraction. As a coach, I created a customised loop band training programme for college level male hockey players, which built the components for the game.

II. METHODOLOGY

The goal of this research was to determine the impacts of loop band training on speed and leg strength among hockey players. To achieve this purpose to the study twenty college level male hockey players from National Engineering College, Lakshmi Ammal Sports Academy, KR nagar, Kovilpatti, Thoothukudi District, Tamilnadu. India were randomly selected as subjects. Their ages varied from 18 to 23 years old. The participants were divided into two groups: loop band and control groups. At an evening session, this loop band group was treated to loop band practice (for three days a week, Monday, Wednesday, and Friday) for eight weeks. Speed and Leg strength was selected as dependent variable. After the compilation of proper data, it was statistically analyzed by using paired't' test. The significance level was established at 0.05.

III. TRAINING PROCEDURE

The loop band group went through an eight-week training regimen that consisted of three days of practise per week. The training took place in the evening. Warming up and cooling down are included in the workout. The workout lasted about 50 to 60 minutes throughout the day. The subjects underwent their training programmes as per the schedules such as lateral walk, leg raise, squat, split walk and wall sit under the strict regulation of the researcher. During experimental period control group did not contribute in any of the exceptional training.

IV. RESULTS

Table 1: Relationship Of Mean, Sd And 'T'-Values Of The Speed Between Pre & Post Test Of The Loop Band And Control Groups Of Hockey Players

Speed	Groups	Test	Mean	S.D	't' Values
	Loop Band Group		Pre Test	7.32	0.28
Post Test			7.27	0.24	
Control Group		Pre Test	7.36	0.27	1.51
		Post Test	7.35	0.26	

*Significant at 0.05 level of confidence

Table-1 reveals that the mean values of per test and post test of control group for speed were 7.36 and 7.35 respectively; the obtained t ratio was 1.51 respectively. The tabulated t value is 1.83 at 0.05 level of confidence for the degree of freedom 9. The calculated t ratio was lesser than the table value. It is found to be insignificant change in speed of the hockey players. The obtained mean and standard deviation values of pre test and post test scores of loop band training group were 7.32 and 7.27 respectively; the obtained t ratio was 32.84. The required table value is 1.83 at 0.05 level of confidence for the degree of freedom 9. The obtained t ratio was greater than the table value. It is found to be significant changes in speed of the hockey players. Figure 1 depicts the mean values for the loop band group and control group.

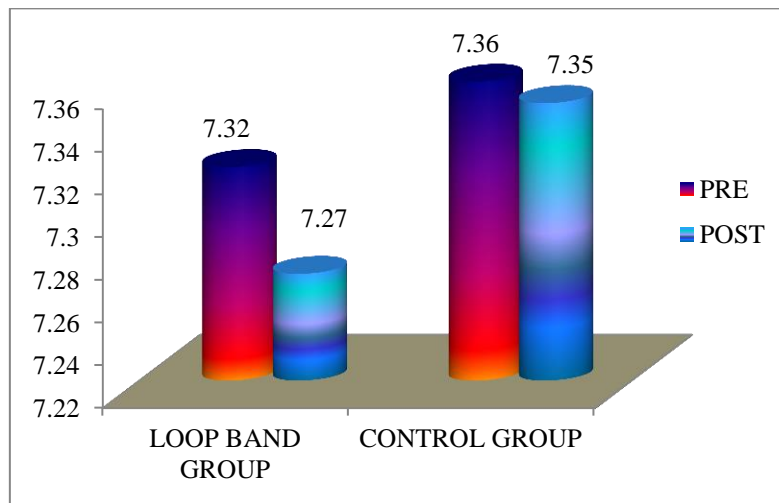


Figure 1: Bar Diagram Showing The Pre Test & Post Test On Speed Of Loop Band And Control Groups

Table 2: Relationship Of Mean, Sd And 'T'-Values Of The Leg Strength Between Pre & Post Test Of The Loop Band And Control Groups Of Badminton Players

Leg Strength	Groups	Test	Mean	S.D	't' Values
	Loop Band Group		Pre Test	71.70	13.08
Post Test			75.80	13.04	
Control Group		Pre Test	71.10	9.55	0.51
		Post Test	71.40	8.79	

*Significant at 0.05 level of confidence

Table-2 reveals that the mean values of per test and post test of control group for leg strength were 71.10 and 71.40 respectively; the obtained t ratio was 0.51 respectively. The tabulated t value is 1.83 at 0.05 level of confidence for the degree of freedom 9. The calculated t ratio was lesser than the table value. It is found to be insignificant change in leg strength of the hockey players. The obtained mean and standard deviation values of pre test and post test scores of loop band training group were 71.70 and 75.80 respectively; the obtained t ratio

was 22.84. The required table value is 1.83 at 0.05 level of confidence for the degree of freedom 9. The obtained t ratio was greater than the table value. It is found to be significant changes in leg strength of the hockey players. Figure 2 depicts the mean values for the loop band group and control group.

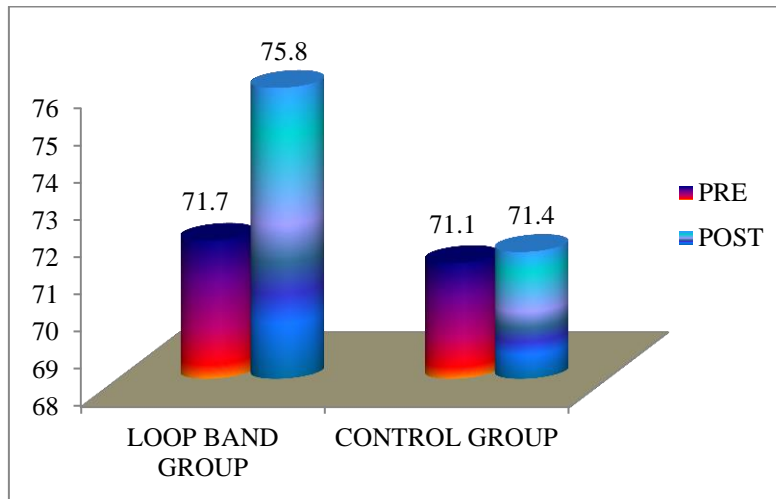


Figure 2: Bar Diagram Showing The Pre Test & Post Test On Leg Strength Of Loop Band And Control Groups

V. DISCUSSION ON FINDINGS

The loop band training is an extraordinary training which has been discovered to be valuable for the hockey players. To study the loop band training on speed and leg strength of hockey players at college level, it was tested under to difference between loop band group and control group. The loop band training includes on speed and leg strength. The lateral walk, leg raise, squat, split walk, and wall sit are all loop band workouts. Other than some fitness and strength components, such as speed, agility, and power, it also enhances muscle growth and leg strength. The collected results showed that the loop band group had improved dramatically. The findings of this study revealed that loop band training improves hockey players' speed and leg strength significantly. The study's findings are consistent with previous research of **B Vivekanth, V Vallimurugan (2019), Senthil kumaran and vinoth kumar (2018), Ooraniyan and Senthil Kumaran (2018), Srikumar, U., & Vallimurugan, V. (2016) and Ashwin, A. L., & Vallimurugan, V. (2014)**. The result of the findings of the investigation revealed that control group was not significantly improved loop band training on speed and leg strength of hockey players at college level.

VI. CONCLUSION

Based on the research findings given the study's limitations, it's clear that the practise of loop band training helped to improve speed and leg strength of hockey players at college level. Throughout eight weeks of loop band training, there was also evidence of continuous enhancement in the selected criteria variables of the loop band group of athletes. It also aids in the development of speed and leg strength.

It was determined that the customised impact of loop band training on speed and leg strength of college level hockey players exhibited a statistically significant positive sign over the duration of the treatment session.

1. It was determined that the personalised effect of the control group on speed and leg strength of college level hockey players exhibited a statistically insignificant positive sign throughout the course of the time.
2. The findings of the comparative effects led to the conclusion that the loop band group improved college level hockey players' speed and leg strength much more than the control group.

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