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## Effect of loop band training on leg strength among basketball players

**S Senthil Kumaran and T Vinothkumar**

**Abstract**

The rationale of this study was to discover the effect of loop band training on leg strength among basketball players. To achieve this purpose to the study twenty college level men basketball players from Madurai district, Tamilnadu, India were randomly selected as subjects. Their age ranged in between 18 and 23 years. The subjects were separated into two groups namely loop band group and control group. The loop band group was subjected to loop band training (for weekly three days monday, wednesday, friday) at evening session for six weeks. Leg strength was selected as dependent variable. After the compilation of proper data, it was statistically analyzed by using paired 't' test. The level of significance was set at 0.05. The result of the present study showed that the loop band training has significant enhancement on leg strength of basketball players.

**Keywords:** loop band training, physical fitness variable, basketball players.

**Introduction**

Loop band is a flexible band used for strength training. They are also commonly used in physical therapy, particularly by convalescents of muscular injuries, as well as cardiac rehabilitations to allow slow rebuilding of strength. flexible band training is a type of physical exercise specializing in the use of resistance to make muscular contraction which builds the strength, anaerobic endurance, and size of skeletal muscles. When well performed, band strength training can give significant functional benefits and advance in overall health and well-being, including increased bone, muscle, tendon, ligament strength and toughness. Sports where band training is central are highland games, shot put, discus throw, and javelin throw. Many other sports use band resistance training as part of their training, rowing, lacrosse, basketball, hockey and soccer. Band resistance training should be implemented in the condition program of all sports, not just strength sports. The increase in speed, strength, agility and muscular endurance will advantage athletes of every sport. As basketball game involves more of muscular contraction. Which build the components for the game, as a research scholar special planned loop band training programme for the college level men basketball players.

**Methodology**

The rationale of this study was to discover the effect of loop band training on leg strength among basketball players. To achieve this justification to the study twenty college level men basketball players from Madurai district, Tamilnadu, India were randomly selected as subjects. Their age ranged in between 18 and 23 years. The subjects were separated into two groups namely loop band group and control group. The loop band group was subjected to loop band training (for weekly three days monday, wednesday, friday) at evening session for six weeks. Leg strength was selected as dependent variable. After the compilation of proper data, it was statistically analyzed by using paired 't' test. The level of significance was set at 0.05.

**Training Procedure**

For loop band group underwent their training programme as three days per week for six weeks. Training was given in the evening session. The training session includes warming up and cool down. All day the workout lasted for 50 to 60 minutes approximately. 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.

**Results**

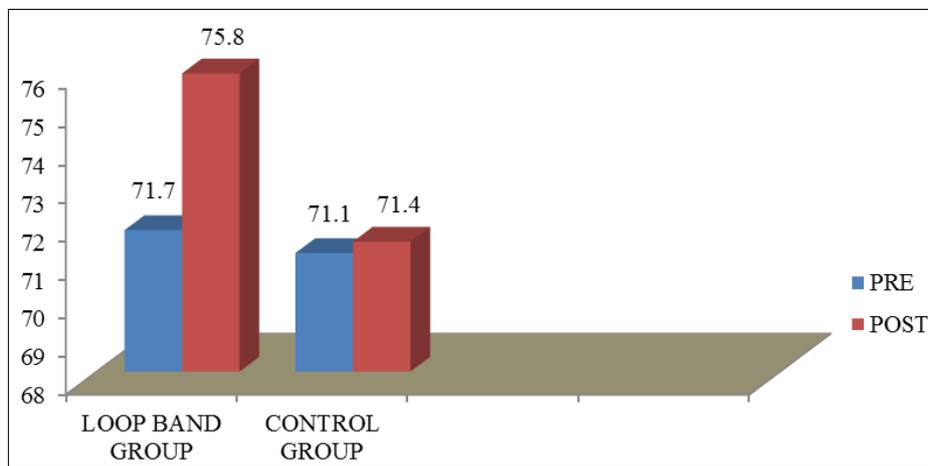
**Table I:** Relationship of mean, sd and 't'-values of the leg strength between pre & post test of the loop band and control groups of basketball players

Physical Fitness Variable	Groups	Test	Mean	S.D	't' Values
Leg Strength	Loop Band Group	Pre Test	71.70	13.08	22.84*
		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-I reveals that the mean values of pre 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 basketball 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 basketball players. The mean values on loop band group and control group are graphically represented in figure-1



**Fig 1:** Bar diagram showing the pre-test & post-test on leg strength of loop band and control groups

**Discussion On Finding**

The loop band training is a fantastic training which has been found to be beneficial of the basketball players. To study the loop band training on leg strength of basketball players at college level, it was tested under to difference between loop band group and control group. The loop band training includes on leg strength. The loop band exercises are namely lateral walk, leg raise, squat, split walk and wall sit. It also improves the muscle size and leg strength and other than some physical fitness components are namely speed, agility, and power. The obtained result proved positively the loop band group significantly improved. The result of the present study showed that the loop band training has significant improvement on leg strength of basketball players. The results of the study are in line with the studies of Velmurugan, Rajamohan (2016) [1]. The result of the study showed that the control group was not significantly improved loop band training on leg strength of basketball players at college level.

**Conclusion**

Based on the findings and within the limitation of the study it is noticed that practice of loop band training helped to improve leg strength of basketball players at college level. It was also seen that there is progressive improvement in the selected criterion variables of loop band group of basketball

players after six weeks of loop band training programme. Further, it also helps to improve leg strength.

1. It was concluded that individualized effect of loop band training group showed a statistically significant positive sign over the course of the treatment period on leg strength of college level basketball players.
2. It was concluded that individualized effect of control group showed a statistically insignificant positive sign over the course of the period on leg strength of college level basketball players.
3. The results of comparative effects lead to conclude that loop band group had better significant improvement on leg strength of college level basketball players as compared to their performance with control group.

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