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Consequence of resistance band training on selected skill performance variables among basketball players

S Senthil Kumaran[1], T Vinothkumar[2]
[1, 2] M.Phil. Research Scholar, Department of Physical Education, Bharathidasan University, Tiruchirapalli, Tamil Nadu, India

Abstract
The idea of this study was to explore the consequence of resistance band training on selected skill performance variables among basketball players. To achieve this purpose of the study thirty school level boys basketball players were selected from St. britto has, Madurai, Tamil Nadu, India were randomly selected as subjects. Their age ranged in between 14 and 17 years. The subjects were divided into two groups namely resistance band group and control group. The resistance band group was subjected to resistance band training (for weekly three days Monday, Wednesday, Friday) at evening session for six weeks. Dribbling, passing and shooting was selected as dependent variable. After the collection of appropriate 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 resistance band training has significant improvement on dribbling, passing and shooting of basketball players.

Keywords: resistance band training, dribbling, passing and shooting, basketball players

Introduction

A resistance band is an elastic band used for strength training. They are also commonly used in physical therapy, specifically by convalescents of muscular injuries, including cardiac rehabilitations to allow slow rebuilding of strength.

Elastic band training is a type of physical exercise specializing in the use of resistance to induce muscular contraction which builds the strength, anaerobic endurance, and size of skeletal muscles. when properly performed, band strength training can provide significant functional benefits and improvement in overall health and well-being, including increased bone, muscle, tendon and ligament strength and toughness, improved joint function, reduced potential for injury, increased bone density, increased metabolism, increased fitness, improved cardiac function, and improved lipoprotein lipid profiles, including elevated HDL ("good") cholesterol.

Sports where band resistance 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 regimen, notably American football, wrestling, track and field, rowing, lacrosse, basketball, pole
dancing, hockey, professional wrestling, rugby union, rugby league and soccer.

Band resistance training should be implemented in the conditioning program of all sports, not just strength sports. The increase in speed, strength, agility and muscular endurance will benefit athletes of every sport.

As basketball game involves more of muscular contraction. Which build the components for the game, as a research scholar special designed band resistance training programme and apply for the school level boys basketball players.

Methodology

The purpose of this study was to explore the consequence of resistance band training on selected skill performance variables among basketball players. To achieve this purpose of the study thirty school level boys basketball players were selected from St. Britto has, Madurai, Tamil Nadu, India were randomly selected as subjects. Their age ranged in between 14 and 17 years. The subjects were divided into two groups namely resistance band group and control group. The resistance band group was subjected to resistance band training (for weekly three days Monday, Wednesday, Friday) at evening session for six weeks. Dribbling, passing and shooting was selected as dependent variable. After the collection of appropriate data, it was statistically analyzed by using paired 't' test. The level of significance was set at 0.05.

The test used to assess the skill performance variables are given in.

Table 1: Criterion Measures

S. No	Variables	Test Items	Unit of Measurement
1.	Dribbling	Johnson Basketball Test	Points
2.	Passing	Johnson Basketball Test	Points
3.	Shooting	Johnson Basketball Test	Points

Training Procedure

For resistance 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. Every day the workout lasted for 45 to 60 minutes approximately. The subjects underwent their training programmes as per the schedules such as lateral walk, shoulder abduction, triceps extension & biceps curl under the strict supervision of the investigator. During experimental period control group did not participate in any of the special training.

Results

Table 2: Comparison of Mean, and 't'-Values of Skill Performance Variables between Pre & Post Test among Resistance Band and Control Groups

S. No	Skill Performance Variables	Groups	Test	Mean	't' Values
1.	Dribbling	Resistance Band group	Pre Test	31.60	15.35*
			Post Test	36.93	
		Control group	Pre Test	31.26	1.10
			Post Test	30.80	
2.	Passing	Resistance Band group	Pre Test	21.46	14.64*
			Post Test	26.13	
		Control group	Pre Test	22.13	1.16
			Post Test	22.46	
3.	Shooting	Resistance Band group	Pre Test	15.60	13.22*
			Post Test	20.60	
		Control group	Pre Test	15.53	0.23
			Post Test	15.46	

*Significant at 0.05 level of confidence

Table-II reveals that the obtained mean values of per test and post-test of resistance band group for dribbling, passing and shooting were 31.60 and 36.93, 21.46 and 26.13, 15.60 and 20.60 respectively; the obtained 't' ratio were 15.35*, 14.64* and 13.22* respectively. The tabulated 't' value is 2.14 at 0.05 level of confidence for the degree of freedom 14. The calculated 't' ratio was greater than the table value. It is found to be significant change in dribbling, passing and shooting of the basketball players. The obtained mean values of pre-test and post test scores of control group were 31.26 and 30.80, 22.13 and 22.46, 15.53 and 15.46 respectively, the obtained 't' ratio was 1.10, 1.16 and 0.23. The required table value is 2.14 at 0.05 level of confidence for the degree of freedom 14. The calculated 't' ratio was lesser than the table value. It is found to be insignificant changes in dribbling, passing and shooting of the basketball players. The mean values of skill performance variables among resistance band group and control group are graphically represented in figure-1.

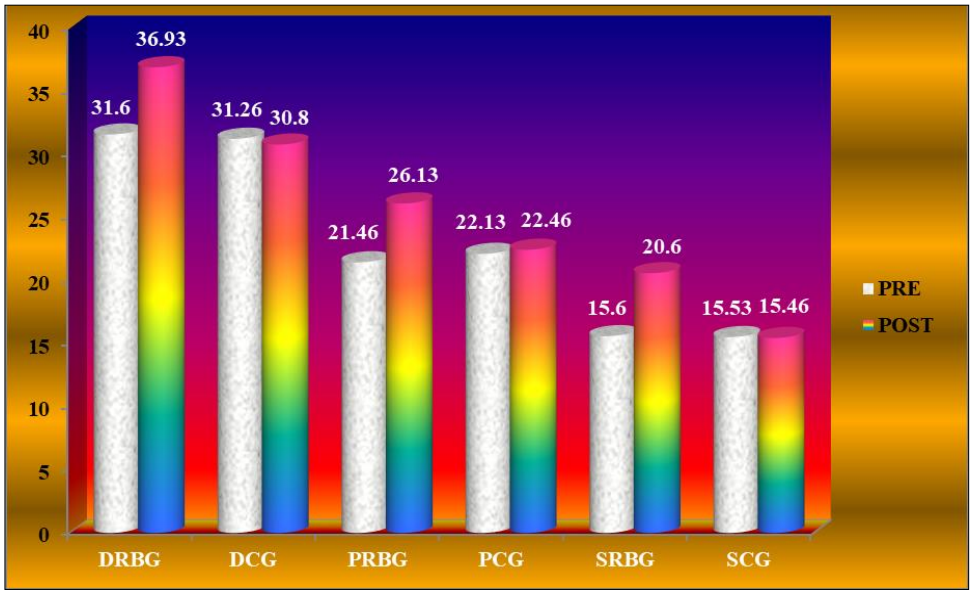

Fig 1: Bar Diagram Showing the Pre Test and Post Test on Selected Skill Performance Variables of Resistance Band and Control Groups (DRBG, DCG, PRBG, PCG, SRBG & SCG)

Discussions on Findings

The results of the study indicated that the selected skill performances variables such as dribbling, passing and shooting were improved significantly after undergoing resistance band training. The changes in the selected parameters were attributed the proper planning, preparation and execution of the training package given to the players. The findings of the present study had similarity with the findings of Joji Vargheese (2014) [1], Takahashi (2008) [2], Senthil Kumaran *et al*., (2018) [3], The results of the present study indicates that the resistance band training methods is appropriate protocol to improve dribbling, passing and shooting of school level boys basketball players. From the result of the present study it is very clear that the skill performances variables such as dribbling, passing and shooting improvement significantly due to resistance band training.

Conclusions

Based on the findings and within the limitation of the study

1. It was noticed that practice of resistance band training helped to improve skill performance variables of school level boys baskeball players.
2. It was also seen that there is progressive improvement in the selected criterion variables of resistance band group of school level boys basketball players after six weeks of resistance band training programme.
3. Further, it also helps to improve skill performance variables dribbling, passing and shooting.

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