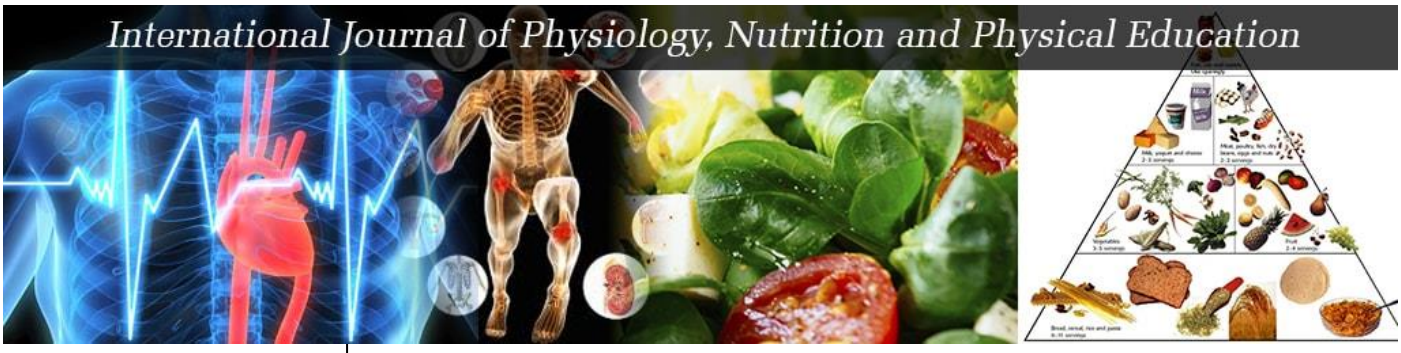

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Comparative study on selected motor fitness variables among college men long jumpers and triple jumpers

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Abstract
The purpose of the study was compare the selected motor fitness variables among Long jumpers and Triple jumpers. To achieve the purpose of the study investigator selected 50 intercollegiate level 25 Long jumpers 25 Triple jumpers were randomly selected from affiliated colleges and university department of Tamil Nadu Physical Education and Sports University. Their ages ranges from 18 to 25 years. They were randomly selected from long jumpers and triple jumpers after analyzing the various factors associated with the presented study. The following variables such as speed was measured through 50 meter dash. Leg explosive power was measured through horizontal jump. Flexibility was measrued through sit and reach. The collected data were analysed statistically by independent't' test. From the analysis of data it was proved that there were significant difference in speed, leg explosive power and flexibility between long jumpers and triple jumpers. Long jumpers was better in speed compared to triple jumpers. Triple jump was better in leg explosive power and flexibility when compared to long jumpers among college level long jumpers and triple jumpers.

Keywords: Speed leg explosive power & flexibility

Introduction
The term "Athletics" is derived from the Greek word "athlos means contest. Although which were initially associated with all sports, now specifically refers to "Track and field". A combination of many sporting events like running, jumping, relay races, hudles and throwing of javelin, discus, shot-put and hammer (Ghoush 2008) [2].
The long jump (historically called the broad jump) is a track and field event in which athletes combine speed, strength, and agility in an attempt to leap as far as possible from a takeoff point. Stephen G. Miller (2004) [5].
The triple jumps sometimes referred to as the hop, step and jump or the hop, skips and jump, is a track and field event, similar to the long jump. Stephen G. Miller (2004) [5].
Motor Fitness refers to the ability of an athlete to perform successfully at their sport. Davis (2000) [1].

Statement of the Problem
The purpose of the study was initiate out to compare the selected motor fitness variables among Long jumpers and Triple jumpers.

Hypothesis
It was hypothesized that there would be a significant difference in selected motor fitness variables such as speed, leg explosive power and flexibility among Long jumpers and Triple jumpers.

Review and Related Literature
Murugadhasan (1996) [3] conducted a research on prediction of long jump performance from selected motor ability components and anthropometric variables among college level men long jumpers. To achieve the purpose of the study college level 75 men long jumpers were selected as subject from Ayya Nadar Nanaki Amal College Sivakasi and Alagappa University held at Karaikudi. The age of the subject were to 18 to 24 years.

They following motor ability variables are speed, leg strength and power. Anthropometric variables are height, weight and leg length. The selecting variables was tested height was measured stadiometer, leg length was measured linear measuring tape. Leg power was measured standing board jump. Weight was measured weighing machine. Leg strength was measured back and leg dynamometer. Standing board jump. Weight was measured measuring tape, speed was measured 50 meters dash. The collected data were analysed with independent variables do o little method of multiple correlation. The result of study sources there was motor ability are speed leg strength and leg power anthropometric variables are height weight and leg length are not related to long jump performance.

Senthilkumar @ Balaji. V (2014) [4] conducted a research on effect of saq training circuit resistance training and plyometric training on selected motor fitness variables among inter-collegiate men football players. To achieve the purpose of the study 60 football players 15 SAQ training group, 15 circuit resistance training group 15 resistance training group and 15 control group were selected as subject from KLN college of information technology, Madurai, Tamil Nadu, India. They age ranges between 18 and 24 years. The variables were selected motor fitness variables are muscular strength, muscular endurance, speed, speed endurance, leg explosive power, agility and cardio respiratory endurance. The selected variables were tested through muscular strength was measured pushups. Muscular endurance was measured bend knee situps. Speed was measured 50meters dash. Speed endurance was measured 150 meters run. Leg explosive power was measured sergeant jump. Agility was measured shuttle run. Cardio respiratory endurance was measured cooper's 12 min run/walk test. The collected data were analysis with ANOCOVA and Scheffe's Post-Hoc test. The result of study sources that there was a significance improvement in motor fitness variables are muscular strength, muscular endurance, speed, speed endurance, leg explosive power, agility and cardio respiratory endurance due to SAQ training, circuit training and plyometric training.

Methodology

To achieve the purpose of the study investigator selected 50 intercollegiate level 25 Long jumpers 25 Triple jumpers were randomly selected from affiliated colleges and university department of Tamil Nadu Physical Education and Sports University. Their ages ranges from 18 to 25 years. They were randomly selected from long jumpers and triple jumpers after analyzing the various factors associated with the presented study. The following variables such as speed was measured through 50 meter dash. Leg explosive power was measured through horizontal jump. Flexibility was measrued through sit and reach.The collected data were analysed statistically by independent't' test.

Results and Discussion

Table I: Showing the Mean Value of Independent'T' Test between Long Jumpers and Triple Jumpers on Speed Leg Explosive Power and Flexibilty (Scores in Seconds/Centimeters)

Variable	Group	Mean	Standard Deviation	Standard Error Mean	Mean Difference	"t"
Speed	Long Jumpers	5.59	0.32	0.06	0.22	2.40*
	Triple Jumpers	5.81	0.33	0.07		
Leg Explosive Power	Long Jumpers	3.03	0.05	0.05	0.09	7.52*
	Triple Jumpers	3.11	0.03	0.01		
Flexibility	Long Jumpers	32.90	3.04	0.61	2.16	2.18*
	Triple Jumpers	35.06	3.90	0.78		

*Significant at 0.05 level for't'-test with df 48. The table value is 2.009.

The result presented in Table I proved that there was significant difference in speed as the obtained 't' value of 2.40 was greater than the table 't' value of 2.009.

That there was significant difference in leg explosive power as the obtained't' value of 7.52 was greater than the table 't' value of 2.009.

That there was significant difference in flexibility as the obtained't' value of 2.18 was greater than the table't' value of 2.009.

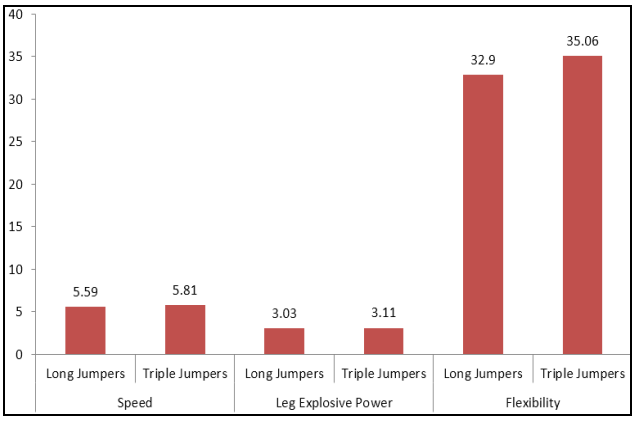

Fig 1: Mean Value of Long Jumpers and Triple Jumpers on Speed Leg Explosive Power and Flexibilty (Scores in Seconds/Centimeters)

Conclusion

1. It was concluded that there was a significant difference in speed between long jumpers and triple jumpers.
2. It was concluded that there was a significant difference in leg explosive power between long jumpers and triple jumpers.
3. It was concluded that there was a significant difference in flexibility between long jumpers and triple jumpers.
4. It was concluded that the long jumpers were better in speed when compared to triple jumpers.
5. It was concluded that the triple jumpers were better in leg explosive power and flexibility when compared to long jumpers.

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