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#### ANALYSIS OF MUSCULAR ENDURANCE AND DYNAMIC FLEXIBILITY BETWEEN BASKETBALL AND VOLLEYBALL PLAYERS

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**Abstract:-** The purpose of the study was to find out the differences in dynamic flexibility and muscular endurance between Basketball and Volleyball players. To achieve the purpose of the study 40 male Basketball and Volleyball players from Chennai city colleges were selected at random. The age of the subjects were ranged between 18 and 25 years. Dynamic flexibility and muscular endurance were selected as variables for the study. The selected variables were tested through modified sit and reach and minute sit ups test respectively. The collected data were analyzed with "t" test. The results of the study showed that there was significant difference in dynamic flexibility and muscular endurance between Basketball and Volleyball players.

Keywords: Muscular Endurance, Dynamic Flexibility, Volleyball Players.

#### INTRODUCTION

Basketball is popular game in the world. The modern Basketball is very fast, by it's very nature the spectators and players enjoy the game of basketball with a great amount of merriment. The skills involved in the game are simple natural and yet are highly stimulating and satisfying to anyone who participates in the game. The skills include passing, running, jumping, dodging etcetera.

Volleyball has come a long way from the dusty-old YMCA gymnasium of Holyoke, Massachusetts, USA, where the visionary William G. Morgan invented the sport back in 1895. It has seen the start of two centuries and the dawn of a new millennium. Volleyball is now one of the big five International sports, and the FIVB, with its 220 affiliated National federations, is the largest International sporting federation in the world. As far as Volleyball is concerned, it is a sport, which includes complex and accurate motor skills, and psychological factors play a decisive role in a competition, differentiating between successful and less successful teams.

Physical fitness is defined as being in a general state of health and well-being or specifically the ability to perform aspects of sports or occupations

Dynamic flexibility is generally defined based on a person's range of motion during movements, particularly during fast-paced movements. This is contrasted to static flexibility, which has more to do with a person's ability to hold a stationary stretch. (Denis, 2003),

Muscular endurance is the ability of a muscle or group of muscles to sustain repeated contractions against a resistance for an extended period of time. (Elizabeth Quinn, 2015)

#### STATEMENT OF THE PROBLEM

The purpose of the study was to compare the dynamic flexibility and muscular endurance between Basketball and Volleyball Players.

#### **HYPOTHESIS**

1. It was hypothesized that there would be significant difference in dynamic flexibility between Basketball players and Volleyball Players

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2. It was hypothesized that there would be significant difference in muscular endurance between Basketball players and Volleyball Players

#### REVIEW OF RELATED LITERATURE

Pasuapathi (2014) conducted a study on "Comparison of selected physical Fitness variables between college men sprinters and long distance runners." The purpose of the study was to find out the differences in selected physical fitness Variables between college men sprinters and long distance runners. To achieve the purpose of the study 40 male sprinters and long distance runners players were selected at random The subjects age ranges between18 to 25 years. The selected variables user tested through standardized tests. The collected data were analyzed with "t" test. The results of the study show that there was a significant difference in dynamic selected Physical Fitness between college men sprinters and long distance runners.

#### **METHODOLGY**

To achieve the purpose of the study 40 male Basketball and Volleyball players from Chennai city colleges were selected at random. The age of the subjects were ranged between 18 and 25 years. Dynamic flexibility and muscular endurance were selected as variables for the study. The selected variables were tested through modified sit and reach and minute sit ups test respectively. The collected data were analyzed with "t" test. The level of significance was fixed at 0.05 levels.

#### RESULTS AND DISCUSSION

Table I MEAN AND INDEPENDENT 't' TEST FOR BASKETBALL AND VOLLEYBALL PLAYERS

Variables	Groups	Mean	Standard	't'- Value
			Deviation	
Dynamic Flexibility	Sprinters	34.06	2.77	5.40*
	Long Distance	29.96	1.99	
Muscular endurance	Sprinters	39.06	2.04	2.60*
	Long Distance	37.16	2.59	

<sup>\*</sup>Significant

From the above table the mean value obtained for Basketball and Volleyball Players were 34.05 and 29.95 respectively and 't' test value between the 5.39. Since the obtained' test value of 5.39 is greater than the table value of 2.024 with df 38 at 0.05 level of confidence, it was concluded that the Basketball and Volleyball Players had significant difference in the performance of dynamic flexibility and the sprinters were better in dynamic flexibility than the long distance runners.

Further the mean value obtained for Basketball and Volleyball Players were 39.05 and 37.15 respectively and 't' test value between the 2.58. Since the obtained 't' test value of 2.58 is greater than the table value of 2.024 with df 38 at 0.05 level of confidence, it was conclude that the Basketball and Volleyball Players had significant difference in the performance of muscular endurance and the sprinters were better in muscular endurance than the long distance runners.

At the beginning of the study the investigator had formulated the hypothesis that there was significant difference on dynamic flexibility and muscular endurance between Basketball and Volleyball Players. The findings of the study were corroborating with the hypothesis. So the research hypothesis was accepted and null hypothesis was rejected.

#### CONCLUSION

1. It was concluded that there was a significant difference in dynamic flexibility and muscular endurance between

#### Basketball and Volleyball Players.

- 2. It was concluded that the Basketball players were better in dynamic flexibility than the Volleyball Players.
- 3. It was concluded that the Basketball players were better in muscular endurance than the Volleyball Players.

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