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This certificate confirms that "Dr. Akash Vijayrao More" has published manuscript titled "Comparative study of flexibility, agility, explosive strength and BMI of basketball and handball players".

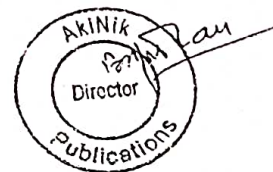
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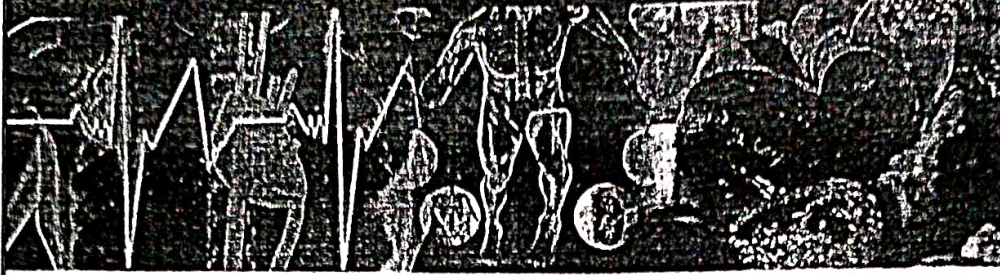
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Yours Sincerely,

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## Comparative study of flexibility, agility, explosive strength and BMI of basketball and handball players

Dr. Akash Vijayrao More

### Abstract

Researcher studied the comparative study of flexibility, agility, explosive strength and BMI of basketball and handball players. The purpose of the study is to compare the flexibility, agility, explosive strength and BMI of Basketball and Handball Players. Researcher hypothesized that, there might be significant differences in flexibility, agility, Explosive Strength and BMI of Basketball and Handball Players. The study was also delimited to 15 Basketball and 15 Handball players. The study was also delimited to collegiate-level players S.G.B.A.U., Amravati. The study was delimited to the male students only. Age of the subjects ranged between 18-25 years. The present study was delimited to flexibility, explosive strength and BMI variables only. 15 Basketball and 15 Handball male players were selected as subjects. The subjects selected for the study was from those who represented inter-collegiate and inter-university trials of S.G.B.A.U., Amravati by using simple random sampling method. For collecting data the researcher administrated Sit and Reach test was used for flexibility and measured in centimeters. Shuttle run test was used to check the agility and measured in seconds. Standing Broad Jump was used for leg strength and measured in inches. Medicine Ball Throw was used for explosive strength and measured in feet. Weighing machine used for Body weight was recorded in kilograms. Stadiometer used for standing height and recorded in centimeters. To find out the significant difference 't' test was employed on each variable independently. To test the hypothesis the level of significance was set at 0.05 level of confidence. Basketball and Handball players having good agility than the Basketball players. Basketball players having good explosive strength than the Handball players. Handball players having good explosive strength than the Handball players. Basketball and Handball players showed same Body Mass Index.

**Keywords:** Agility, flexibility, strength, basketball, handball.

### Introduction

Physical fitness is judged by performance and its common factors are strength, endurance, power, speed, agility, balance, flexibility and stamina. Agility is the ability to perform a series of explosive power movements in rapid succession in opposing direction. As present researcher have directed their attention towards the study of agility and its role on performance level of the player in various games. Because among the traits of physical fitness and performance of athletes and trainers, agile movement and flexibility is most important traits. These traits are measured and considered by the coaches and the experts with interest. In handball these all variables are much necessary for good playing. In these all games one thing is common that all these games are played with hand. Depth perception, Agility and Explosive strength play very important role in handball.

### Statement of the Problem

The problem is stated as, Comparative Study of flexibility, Agility, Explosive Strength and BMI of Basketball and Handball players.

### Purpose of the Study

The purpose of the study is to compare the flexibility, agility, Explosive Strength and BMI of Basketball and Handball Players.

### Hypothesis

Researcher hypothesized that, there might be significant differences in flexibility, agility

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