



P-ISSN: 2394-1685
E-ISSN: 2394-1693
Impact Factor (ISRA): 5.38
IJPESH 2016; 3(6): 69-71
© 2016 IJPESH
www.kheljournal.com
Received: 15-09-2016
Accepted: 16-10-2016

Praveen Kumar Mishra
Ph. D Scholar Sardar Patel
University, Anand, Gujarat,
India

A comparative study of selected anthropometric measurements between badminton and table-tennis players of Sardar Patel University

Praveen Kumar Mishra

Abstract

The purpose of the study was to compare of selected anthropometric measurement of Badminton and Table-Tennis player of Sardar Patel University, Anand, Gujarat, India. To achieve the purpose of this study 60 Badminton and Table-Tennis Female players i.e. Badminton (n=30) & Table-Tennis (n=30), who participated in the inter college completion organized by Sardar Patel University, Anand, Gujarat, India were randomly selected and used as subjects in this study. Age group ranged from 18-25years. Each athlete was tested for various anthropometric measurements necessary for estimation of body weight, height, sitting height, Arm Length and Leg Length. A set of anthropometric measurements, which included body weight, height, sitting height, Arm length & leg length were taken into consideration for anthropometric measurements. Weighing scale, anthropometric rod and measuring tape were used for the measurements. To test the significance of mean difference between the Badminton and Table-Tennis players, statistical technique of 't' test was applied. Badminton game have depicted somewhat higher mean value for height, Arm Length & Leg length than Table-Tennis game and similarly, the Table-Tennis game have shown higher mean value for Body weight and sitting height as compared to Badminton game. But none of such mean differences were found to be significant. So, it may be interpreted that in case of Anthropometric measurements namely; height, Arm Length, Leg length weight and sitting height there existed no significant differences between the Badminton and Table-Tennis games. Hence, the null Hypothesis is accepted.

Keywords: Anthropometric measurements, table-tennis players, Sardar Patel University

Introduction

Anthropometry is used to assess and predict performance, health and survival of individuals and reflect the sports, and social well-being of populations. Assessment of the human body is important to determine its relationship with risk of health problems such as overweight, growth failure, and eating disorders. Anthropometry is an important technique in the field of public health and nutrition. It is important to note that research in India, in this particular field started during the past few years. In other countries, however, research in the disciplines concerning sports has been on since long (Hirata 1979) [2].

In recent past years, the selection and development of talent in sports have been gaining emphasis. Of course it involves integral approach of different sports science specialists. However, the role of anthropometry as a sports science is perhaps one of the most crucial in this regards. This is essential because the physique, body composition, physical growth and one's motor development are of fundamental importance in developing the criteria of talent selection and development in sports (Sodhi 1991). The Knowledge of this science equips us with the techniques of various body measurements like height, body weight, diameters, circumferences and skinfolds thickness which ultimately deal with the assessment of human physique, body composition, physical growth, maturation and gross functions of the human body. The inter-relationship between each of these above mentioned variables with the success in sports can be regarded as a proven fact today (Hirata, 1966 *et al.*). The investigator in the underline study would like to compare the anthropometric variables i.e. height, weight and certain measurements between players of Badminton and Table-Tennis.

Correspondence
Praveen Kumar Mishra
Ph. D Scholar Sardar Patel
University, Anand, Gujarat,
India

Methodology

Objective of the study

The purpose of the study was to compare of selected anthropometric measurement of Badminton and Table-Tennis player of Sardar Patel University, Anand, Gujarat, India

Hypothesis

It was hypothesized that there would be significant differences between Badminton and Table-Tennis Players of selected Anthropometric measurement of Sardar Patel University.

Subjects

To achieve the purpose of this study 60 Badminton and Table-Tennis Female players i.e. Badminton (n=30) & Table-Tennis (n=30), who participated in the inter college competition organized by Sardar Patel University, Anand, Gujarat, India were randomly selected and used as subjects in this study. Age group ranged from 18-25years. Each athlete was tested for various anthropometric measurements necessary for estimation of body weight, height, sitting height, Arm Length and Leg Length. A set of anthropometric measurements, which included body weight, height, sitting height, Arm length & leg length were taken into consideration for anthropometric measurements. Weighing scale, anthropometric rod and measuring tape were used for the measurements.

Statistical Technique

To test the significance of mean difference between the Badminton and Table-Tennis players, statistical technique of ‘t’ test was applied.

Results and Discussion

Since the purpose of the study was to analyze the selected Anthropometric measurement of players of Badminton and Table-Tennis, these are explained with the help of different tables.

Table 1: Descriptive Statistics Of The Groups

S. No.	Antropometric Measurements	Groups	Mean	SD
1	Height (cm)	Badminton	169.35	5.35
		Table-Tennis	167.65	6.59
2	Body Weight	Badminton	58.41	5.45
		Table-Tennis	60.87	6.22
3	Sitting Height	Badminton	67.30	3.02
		Table-Tennis	68.54	4.99
4.	Arm Length Length	Badminton	73.35	3.46
		Table-Tennis	72.74	4.68
5.	Leg Length	Badminton	102.05	4.30
		Table-Tennis	99.01	4.68

*Significant at 0.05 level

Table-1 Shown that the mean value of Badminton game have depicted somewhat higher mean value for height, Arm Length & Leg length than Table-Tennis game and similarly, the Table-Tennis game have shown higher mean value for Body weight and sitting height as compared to Badminton game. But none of such mean differences were found to be significant. So, it may be interpreted that in case of Anthropometric measurements namely; height, Arm Length, Leg length weight and sitting height there existed no significant differences between the Badminton and Table-Tennis games. Hence, the null Hypothesis is accepted.

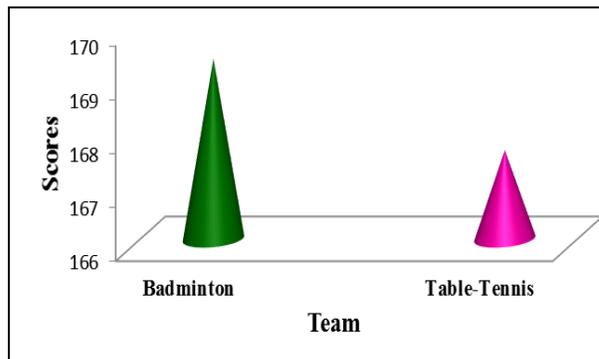


Fig 1: Comparison of mean score of Height between Badminton and Table-Tennis Players

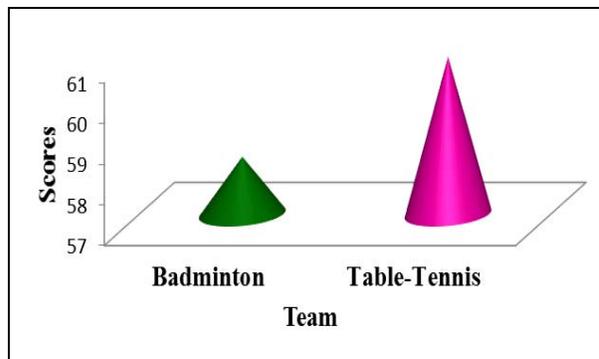


Fig 2: Comparison of mean score of Body Weight between Badminton and Table-Tennis Players

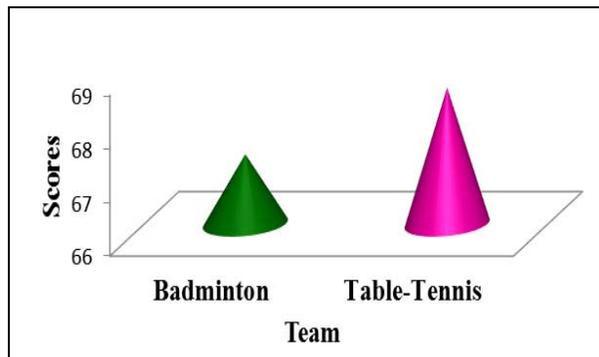


Fig 3: Comparison of mean score of Sitting Height between Badminton and Table-Tennis Players

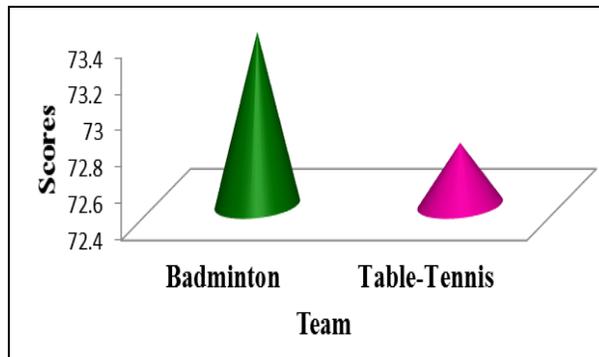


Fig 4: Comparison of mean score of Arm Length between Badminton and Table-Tennis Players

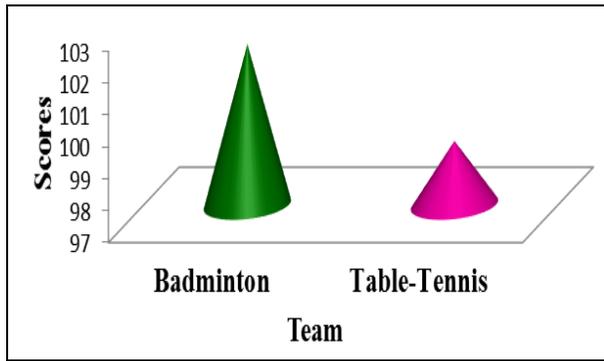


Fig 5: Comparison of mean score of Leg Length between Badminton and Table-Tennis Players

Discussion of Findings

Players of Badminton game were taller, lighter and possess greater value for arm length, leg length and possess lesser value for sitting height than Table-Tennis game. There was significant difference established between the Badminton and Table-Tennis game in leg length. However there was no significant difference in height, weight, sitting height, arm length. The Badminton has more height than the Table-Tennis players as the game requires lots of jumping and running.

Conclusions

Badminton game have depicted somewhat higher mean value for height, Arm Length & Leg length than Table-Tennis game and similarly, the Table-Tennis game have shown higher mean value for Body weight and sitting height as compared to Badminton game. But none of such mean differences were found to be significant. So, it may be interpreted that in case of Anthropometric measurements namely; height, Arm Length, Leg length weight and sitting height there existed no significant differences between the Badminton and Table-Tennis games. Hence, the null Hypothesis is accepted.

References

1. De Garay AL, Levine L, Carter JEL. Genetic and Anthropological studies of Olympic athletes. Academic press, London. New York, 1974, 22-36.
2. Hirata, Kin-Itsu. Selection of Olympic champions. Department of physical edn, Chukyo Univ, Tokata, Japan, 1979.
3. Kemper HCG. Growth, health and fitness of teenagers, longitudinal research in international perspective. Med. Sports Scs. S. Karger, Basel, 1985.