

SEGMENTAL MEASUREMENT OF STATE LEVEL BADMINTON PLAYERS OF DIBRUGARH DISTRICT OF ASSAM

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Abstract:

The purpose of the present study was to analyse the Segmental Measurement of State Level Badminton Players of Dibrugarh District, Assam. The study was administered on total thirty (N= 30) male state level badminton players aged from 17-22 years were selected purposively from Dibrugarh district. The segmental measurement which was used in this study was included hand length, arm length, upper limb length, lower limb length, hand span length and BMI. Descriptive statistics were used to analyse the data. The result of the study shows that the mean and SD of BMI=21.96±2.46, hand length=18.8±1.14, arm length=57.4±1.84, upper limb length=71.19±3.14, lower limb length=100.1±3.54, hand span length=21.5±1.41.

Keywords: Segmental, Badminton, Dibrugarh, Assam.

INTRODUCTION

Games and sports have always been a part of human life. Sports bring competitive mind, dedication, perseverance and unity among people. Sports competitions are organized almost in all sports discipline. Badminton is a racket sport that is played by two or four players on a rectangular court. The game is characterized by multiple actions and specific movement patterns like, fast accelerations, decelerations and many explosive shifts with changes. High levels of skill across a variety of shots are needed for success in badminton. Players often used short service (78%) and returned with net shot (42%) in the men's single (Lu & Huang, 2005) in order to create an initiative attack chance. These situations were similar in doubles competition. The international standard duration of single match ranges from 25 to 110 min, and the time required to score each point ranges from few seconds to several minutes. Many rallies are decided in less than 10s, and the intense actions during the match require rapid high intensity movements that are repetitively performed within a short time period (Rusdiana et al., 2020). According to Kuntze et al., (2010), stroke techniques are categorized into three types based on the racket position. Stroke techniques include underarm, sidearm, and overhead strokes. The most frequently used attack technique is the overhead smash stroke technique (Chow et al., 2014). Similarly, there are two types of smash technique skills, i.e., forehand and backhand smash. These are powerful attack techniques that are used to dominate the opponents and score as many points as possible; these techniques account for 39.8% of all scored points (Barreira et al., 2016). Furthermore, a smash is a fast stroke that relies on the strength, velocity, and flexion of the wrist with the shuttlecock swooping down towards the opponent's field area (Lam et al., 2020).

PURPOSE OF THE STUDY

The purpose of the present study was to analyse the “*Segmental Measurement of State Level Badminton Players of Dibrugarh District of Assam.*”

METHODOLOGY

SELECTION OF SUBJECTS

The study was administered on total thirty (N= 30) male state level badminton players were selected purposively from Dibrugarh district of Assam. The age of the subjects were ranging from 17 to 22 years

SELECTION OF VARIABLES:

- Hand length,
- Arm length,
- Upper limb length,
- Lower limb length,
- Hand span length
- BMI

ADMINISTRATION OF TEST:

All participants gave their written consent on the form that was previously given to them. All participants confirmed that they were not injured. Before the test, the participants received technical explanations related to the implementation procedures in a comprehensive manner. The following test items were used to collect the data of selected variables from the subjects.

Table I shows the test item used to collect data in the present study

Table I

CRITERION VARIABLES	TEST ITEMS	UNITS OF MEASUREMENT
➤ Hand length,	Anthropometric tape	In centimetre
➤ Arm length,	Anthropometric tape	In centimetre
➤ Upper limb length,	Anthropometric tape	In centimetre
➤ Lower limb length,	Anthropometric tape	In centimetre
➤ Hand span length	Anthropometric scale	In centimetre
➤ BMI (Height & Weight)	Stadiometer & Weighing machine	In centimetre and kilogram

STATISTICAL TECHNIQUE

Descriptive statistics were used to analysis the collected data of the variables.

RESULTS AND DISCUSSIONS

To find out the segmental measurements of state level male badminton players of dibrugarh on Hand length, Arm length, Upper limb length, Lower limb length, Hand span length and BMI (height and weight), descriptive statistics was used and the result has shown in the table-II below

Table II

Variables	Mean	SD	Minimum	Maximum
Arm length	57.4	1.84	55	60
Hand length	18.8	1.14	17	21
Hand span length	21.5	1.41	19.5	24.5
Lower limb length	100.1	3.54	94	105
Upper limb length	71.19	3.14	65.4	75.8
BMI	21.96	2.46	18.7	24.6

The Descriptive statistic table-II the measures of all six (6) different variables is been elaborate where mean of Arm length=57.4, Hand length=18.8, Hand span length=21.5, Lower limb length=100.1, Upper limb length=71.19 and BMI=21.96, resulting the highest mean in lower limb length and lowest in hand length. The standard deviation in the table 1 indicates the state level badminton players has the highest diverse score in lower limb length with 3.54 then in and upper limb length with 3.14, BMI with 2.46, arm length with 1.84, hand span length with 1.41 and lowest in hand length 1.14.

CONCLUSIONS

On the basis of the results obtained by statistical analysis on, Segmental Measurement of State Level Badminton Players of Dibrugarh District of Assam.” the following conclusions were drawn.

1. It was concluded that the arm length of badminton players ranged from 55cm to 60cm, hand length ranged from 17cm to 21cm, hand span length ranged from 19.5cm to 24.5cm, the lower limb length ranged from 94cm to 105cm and Upper limb length ranged from 65.4cm to 75.8cm who has represented dibrugarh district in different state level tournament.
2. It was concluded that the BMI of badminton players ranged from 18.7 to 24.6 who has represented dibrugarh district in different state level tournament.

3. It was also concluded that the BMI range has shown under healthy weight category of state level badminton players of dibrugarh District of assam.

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