ASSESSMENT OF SPEED AND FLEXIBILITY AMONG THE BADMINTON PLAYERS OF HILL AND VALLEY DISTRICTS OF MANIPUR

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Abstract: *This study aimed to find out the differences in speed and flexibility among the badminton players of the Hill and Valley districts of Manipur. The sample of the study was a total of 40 state-level male badminton players (20) from Hill districts and (20) from Valley districts of Manipur. The subjects' age was ranged from 18-23 years. A 30-meter run test and sit and reach test were used to determine the speed and flexibility respectively, Descriptive analysis and independent 't' test statistical techniques were employed to find the difference between the two groups' means, independently. The level of significance was chosen at 0.05 level of confidence, result reveals that the mean values (M) and standard deviation (SD) of the speed of 20 badminton players each from the hill and valley districts of Manipur were 5.37±0.18 and 5.29± 0.04 respectively. The mean values (M) and standard deviation (SD) of the flexibility of 20 badminton players each from hill and valley districts of Manipur were 43.00±4.29 and 41.25±4.55 respectively. In addition, the calculated "t" value of speed is 1.920, which is smaller than the tabulated 't' values = 2.042 at a 0.05 level of significance. The calculated "t" value of flexibility is 1.251, which is smaller than the tabulated 't' values = 2.042 at a 0.05 level of significance. Therefore, there were no significant differences found in Speed and flexibility among the Badminton players of Hill and Valley Districts of Manipur.*

Keywords – Badminton, Speed, Flexibility, Hill, Valley

Introduction

In this present era of persisting change, games, and sports have become a vital part of one`s life. Man has made his mark on the moon and is still aiming for higher targets to achieve in space. Likewise, in the field of sports science, Experts are striving to achieve maximum performance through critical thinking ability, scientific training modules, and even through drugs and dopes. In this era, games and sports are not just kept indulged or limited to self-satisfaction but it has got a variety of benefits. Games and sports play a crucial role in highlighting a nation's prestige on international fronts. Competitions display how one can show one's worth by competing successfully- All countries compete to manifest and exhibit their supremacy over each other for a defeat or success in international sports competitions. Every country tries to evolve its innovation in techniques, tactics, and strategies to exhibit a distinguished performance to achieve the highest level and emerge as winners and champions of sports (Frost., R, 1971) [1]. This is the reason why so many scientific advancements and means are utilized by experts and sportspersons for better success. Downey (1982)[2] stated that physical fitness is a vital part of sports performance and the achievements of a sportsperson. It also states that the quality of its utilization value is directly proportional to the level of sports performance. Meaning the greater the level of fitness, the greater the ability of a person to attain higher levels of performance.

In these days and age, physical education has evolved tremendously and has given a new mode. It is now identified as an integral part of education and can no longer be separated from it. Motor Fitness is an essential or

basic need. It is also related to the ability to meet the demands of the environment especially to preserve, to stand with stress, to assist the fatigue, and to process the energy for an abundant life. Motor fitness implies more than the ability to do work without much effort, physical fitness. All these activities not only enhance physical well-being but also have a great impact on our mental state and personal social adjustment as well. Pinto (1982) [3] states that the top-class world national players today need to be equipped with speed, power, endurance, and top physical and mental fitness to put up with the constant stress and strain of competition. The World Federation defines any person playing badminton as a badminton player. Whetnall and Morris (1981) [4] also state that "badminton is a game of skill, speed, power and control. A game of badminton demands quick reaction, fast movement, accuracy and power in the stroke, and sudden changes in direction, which demand a higher level of motor fitness.

Speed is defined as the quickness of movement. Speed plays a vital part in every sport and can be expressed as any one of, or a combination of maximum speed, elastic strength (power), and speed endurance. It is the key factor that sets apart good players from great players. Speed is essential for playing efficient and effective badminton. Players are required to move quickly around the court and react quickly to their opponent's shots. In addition, speed is an important key factor for playing defensively because, in badminton, the player with the better defensive skills often wins the rally.

A person's flexibility refers to the ability of our joints to move through a full range of motion. Having flexibility in one's muscles allows for movement around the joints and is vital in getting the right movements for badminton strokes. The speed at which badminton players move and change direction (agility) implies that they require a high level of flexibility to deal with these movements as it puts a lot of pressure on the muscles and joints. Being more flexible can enhance a player's ability to achieve overall movement coordination and game precision and help a player cope with higher training intensity and muscle fatigue.

This fitness training for badminton players should emphasize speed, agility, endurance, strength, and flexibility. Running speed and agility are also important to the badminton player due to the requirement for speed variation, height, and angle of approach to the shuttle. The ability to cover short distances quickly will also be one of the advantages to badminton players Wilkinson, M. (2009) [5].

Manipur is divided into Hill and Valley where the Hill is occupied by the tribals and the valley is occupied mostly by the Meiteis. Little is known about the differentials in participation and achievement in sports between the hills and the valley of Manipur state of India. Therefore, examining the status of the selected fitness components will help in knowing and bridging one of the many gaps that may have made a difference in the field of sports.

1.1 Objectives

1. To find out the differences in speed among the selected badminton players of hill and valley districts of Manipur.
2. To yeah find out the differences in flexibility among the selected badminton players of hill and valley districts of Manipur

1.2 Hypothesis

1. There will be a significant difference in Speed among the badminton players of Hill and Valley districts of Manipur.
2. There will be a significant difference in flexibility among the badminton players of Hill and Valley districts of Manipur.

2. Methodology

In this chapter, the procedure for the sources of data, selection of the subjects, criterion measures, the procedure for administration of tests, and statistical procedures employed for the study are described.

2.1 Material and Methods

The data on this study was collected from 40 Male Badminton players 20 each from both hill and valley districts of Manipur who have participated in the state-level competition.

2.2 Selection of Subjects

For this study, 20 (twenty) male badminton players from the Hill districts of Manipur and 20 (twenty) male badminton players from the Valley districts of Manipur were selected as subjects. The subjects' age was ranged from 18-23 years. The entire subject is medically fit to participate in the research work.

2.3 Criterion measures

1. To determine the speed, a 30-meter run test was used and the performance was recorded in seconds by stopwatch.

2. To determine Flexibility, the sit and reach test was monitored and was recorded in centimeters.

2.4 Collection of data

The data was collected on different sheets of tests. The score of the trial was recorded and the best score was considered as raw score. The necessary marking was completed before the start of the test. The data was collected from 40 male subjects (20 badminton players from Hill districts and 20 badminton players from Valley districts) who participated in the state-level competition.

3. Analysis and interpretation of data

The statistical analysis for comparison of the 30-m run test and sit and reach test among the badminton players of Hill and Valley districts of Manipur are presented in this chapter. For the Comparison of selected variables i.e. speed and flexibility among the badminton players of Hill and Valley districts of Manipur, the comparative t-test has been adopted.

3.1 Statistical Analysis of Data

For the analysis of the data on the collected 40 male Badminton players, descriptive analysis, and independent 't' test statistical techniques were employed to find the difference between the two groups means, independently.

3.2 Level of Significance

To test the hypothesis, the level of significance was chosen at 0.05 level of confidence, which was considered most adequate and reliable for this study.

3.3 Findings

After the statistical analysis, the following findings were drawn.

Table-1: Mean Comparison

Variable	Group						
Speed	Hill						
	Vall						

	ey						
Flexibility	Hill						
	Valley						

Table 1 reveals that the mean values (M) and standard deviation (SD) of the speed of 20 badminton players of hill and valley districts of Manipur were 5.37±0.18 and 5.29± 0.04 respectively. The mean values (M) and standard deviation (SD) of badminton players of hill and valley districts of Manipur were 43.00±4.29 and 41.25±4.55 respectively. In addition, The calculated "t" value of speed is 1.920, which is smaller than the tabulated 't' values = 2.042 at a 0.05 level of significance. The calculated "t" value of flexibility is 1.251, which is smaller than the tabulated 't' values = 2.042 at a 0.05 level of significance. Therefore, these can be pronounced as no significant differences in terms of speed and flexibility. The graphical representation is given below

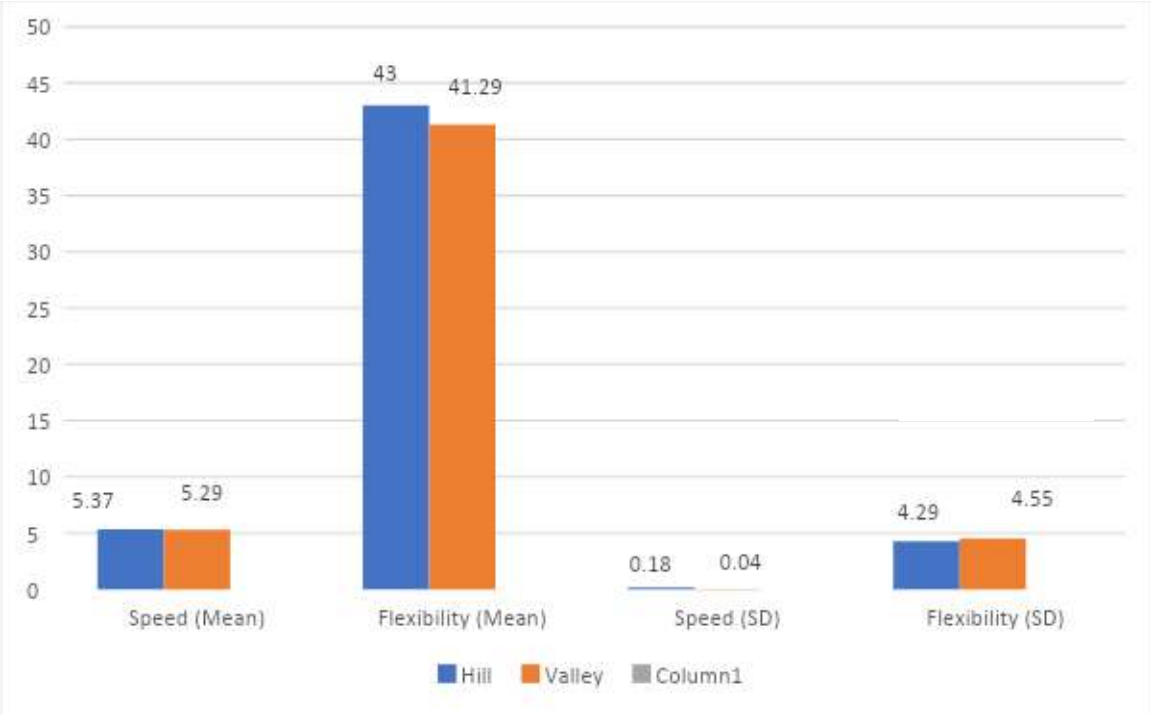

Figure 1: Graphical presentation means values of Both Groups

DISCUSSION AND CONCLUSION

The popularity of badminton is ever-increasing, and to achieve higher performance, every player is striving to attain the best specific training related to the game Sports scientists and performance consultants are growing in demand and employment numbers, with the constantly increasing focus within the sporting world on achieving the best results possible. Through the advancement of science and its application in sports, researchers

have developed a vast understanding of how the human body reacts to exercise, training, different environments, and many other stimuli.

Based on the findings of the study, It is concluded that no significant differences were found among the badminton players of Hill and Valley districts of Manipur. The study shows that both groups show equal potential in speed and flexibility. However, it is quite distinct when it comes to participation and medal tally in tournaments and state representation in national or international tournaments, the ratio of participation from the hill districts is incomparable to the ratio of participation of the valley districts -Lack of infrastructure, lack of knowledge about the specific game and its scopes, little or no talent identification programs or initiations, no access to modern technologies and advancements, lack of exposure to various training facilities, economic background, social, environmental, and cultural lifestyle could be a possible and valid reason.

Due to the advancement and various improvements in the field of sports science, the training modules, and techniques of the game, sports facilities are constantly upgrading and changing, and therefore, players from both groups need to have equal access to the same facilities and quality of training to get a desired and impartial outcome.

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