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## Role of dermatologyphic parameters in badminton

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### Abstract

Modern man lives in a mental world, in which the important skills for success are based on his or her psychological abilities. He or she must perform the Psychological dimensions of his or her life in order to seek an explanation for his/her behavior. Here is an evidence of more Phenomenological approach to the physical activity and sports and this is exemplified by an increasing interest in physical fitness and behaviors.

Dermatologyphic parameters are supposed to be the key element for Badminton players. It is also said that higher the percentage of these variables better will be the performance of the Badminton player. The performance of a Badminton player also depends on how much does he/she do the physical exercises that is also beneficial for good rhythm.

For the current research work, 50 College-level Badminton players were asked about the factors which influenced their performance. The current article highlights various factors which are responsible for influencing the performance of a Badminton player.

**Keywords:** Badminton player, Performance, Dermatologyphic

### Introduction

The word "Sports" occasionally denotes a break of nature usually it refers either to a pleasant pass time or somewhat hazardous recreation or to someone who is prepared to face during challenge or willing to take a chance.

Sport is an institutionalized competitive activity that involves vigorous physical skills or use of relatively complex physical skills by individual's participation is motivated by a combination of intrinsic and extrinsic factors.

Badminton is very popular in India. India has produced a lot of Badminton players like Saina Nehwal, P.V. Sindhu and Srikanth Kidambi etc. There are many factors which affect the performance of Badminton players. The factors such as loop, radial loop and ridge counts etc. are the key points to succeed as a Badminton player. Badminton game demands a good physical fitness and stamina so as to perform better at any level. So a Badminton player needs to be highly fit so as to perform better.

It is observed that a Badminton player having good stamina and fitness can generate good performance and even can do much better using his/her abilities. To survive in the competitive field of sports, a Badminton player has to prevent his/her body from injuries. It is observed that Badminton players suffering from injuries can't have long career or has to struggle to perform better.

Gym activities can also enhance the stamina of a Badminton player. As gym activities improves the physical fitness of the Badminton players and a player can make extra effort to perform better in the field. The other factor which is supposed to be ideal for a Badminton player is hand-eye coordination. As more the hand-eye coordination of a Badminton player, better will be the performance and a player can also improve the performance by working on the limitations.

There are many Dermatologyphic variables which were used in the current research work. Some of these variables are pattern of fingers ridge counts, metric analysis of palm etc. The correlation of these variables was performed with the performance and was observed that these variables certainly influence the performance of the Badminton players.

Palm is also a very crucial factor for the Badminton players as the strong palm can do wonders in the performance of a Badminton player.

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It is observed that the Badminton players with quick palm action can perform better as compared to that with slow palm. Ridge counts also contribute in the performance of the Badminton players. It is observed that the player with higher number of ridges can perform better as compared to one with less number of ridges. Breathing process of a Badminton player should also be long so that a player can enhance his/her stamina in the game.

**Hypotheses of the study**

The hypotheses for the current research work are as follows:

1. Dermatological variables can influence the performance of a Badminton player.
2. Dermatological variables can predict the performance

**Results**

**Table 1:** Badminton Smash Test

| Percentile        | Sex  |       | Percentile        |
|-------------------|------|-------|-------------------|
|                   | Boys | Girls |                   |
| 100 <sup>th</sup> | 10   | 10    | 100 <sup>th</sup> |
| 95 <sup>th</sup>  | 7    | 8     | 95 <sup>th</sup>  |
| 90 <sup>th</sup>  | 6    | 7     | 90 <sup>th</sup>  |
| 80 <sup>th</sup>  | 5    | 6     | 80 <sup>th</sup>  |
| 70 <sup>th</sup>  | 4    | 5     | 70 <sup>th</sup>  |
| 60 <sup>th</sup>  | 4    | 5     | 60 <sup>th</sup>  |
| 50 <sup>th</sup>  | 3    | 4     | 50 <sup>th</sup>  |
| 40 <sup>th</sup>  | 2    | 4     | 40 <sup>th</sup>  |
| 30 <sup>th</sup>  | 2    | 3     | 30 <sup>th</sup>  |
| 20 <sup>th</sup>  | 1    | 2     | 20 <sup>th</sup>  |
| 1                 | 1    | 1     | 10 <sup>th</sup>  |
| 0                 | 0    | 0     | 0                 |

The subject stands anywhere in the right service court (x) and serves twelve shuttles. The server attempts to serve over the extended racket of a student who stands in the square (O) in

of a Badminton player.

**Method**

A Badminton Set-up Machine (Motor or manual) is needed along with a tightly strung badminton racket and several birdies. The following figure shows lines and points that should be marked with chalk or tape on the court. The machine should be placed 13 feet from the net, with the arm rotating belt parallel to the net.

The Subject will stand below the dropping point of the machine and facing the net. After seven practice trials, the student is to smash the bird into the scoring areas along either side line. Trials taken without reasonable speed and force are incorrect and must be repeated for scoring purposes.

the target court. This student acts as the “opponent” and assists in the scoring by yelling “low” for any shuttle which does not go over his racket.

**Table 2:** Poole’s Long Serve Test Scoring Scale

| Preliminary skill test | Performance level | Final skill test |
|------------------------|-------------------|------------------|
| 26 Above               | Advanced          | 30 Above         |
| 17-25                  | Intermediate      | 20-29            |
| 0-16                   | Beginner          | 0-19             |

The scorer stands at point Z in the figure. Each serve is scored according to the zone in which the shuttle hits. The best ten out of twelve serves are totaled. A perfect score would be fifty. Shuttles hitting on the line are given the higher point values. One point is deducted for any shuttle that fails to clear the upheld racket of the player at O.

The player being tested stands between the two square marks on the court opposite the target. The person giving the tests (player with considerable experience) stands on the intersection of the short service line and the center line on the same side of the net as the target and serves the shuttle to the player being tested. The shuttle must cross the net with enough force to carry it as far as the two squares before it

touches the floor. If it does not go that far as the two squares before it touches the floor. If it does not go that far or is outside the space between the two squares, the player being tested should not play it.

No score is given for any trial failing to go over the rope or failing to land in the court in the space behind the rope and on the target, as indicated on the diagram. Any shuttle landing within and area or on the line surrounding the area is scored as shown in the diagram. Any shuttle landing on a line dividing two scoring areas receives the score of the higher area. The score for the entire test is the total of twenty trials. It is considered a foul and the trial is repeated if the stroke is “carried” or “slung”.

### Conclusion

The player to be tested stands behind the 6-foot restraining line facing the wall with racket and shuttle in hand. On signal he sends the shuttle with an underhand serve against the wall and volleys it on each rebound for a period of thirty seconds. Strokes made while the player is touching the floor nearer the wall than the restraining line do not count.

The player may cross the restraining line to recover the shuttle but he must return to behind the line before putting the shuttle into play again with an underhand motion. Any stroke may be used; hard driven. Forehands or backhands with good wrist action seem to produce the best results. The test should be demonstrated and a practice period should be allowed before any data are collected.

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