The Overview of the Dominant Physical Condition of the SSB Barona Banda Aceh Football Athletes

Maimun Nusufi
Syiah Kuala University, Banda Aceh, Indonesia

Alfian Rinaldy
Syiah Kuala University, Banda Aceh, Indonesia

Muhammad Jafar
Syiah Kuala University, Banda Aceh, Indonesia

Ifwandi
Syiah Kuala University, Banda Aceh, Indonesia

Amanda Syukriadi
Syiah Kuala University, Banda Aceh, Indonesia

Abstract
This research aims to determine the dominant physical condition of SSB (football school) Barona Banda Aceh football players which was conducted in 2019. The research is descriptive research with an evaluation technique. The population and sample of the research are the whole SSB Barona Banda Aceh football players in 2019 accounted for 25 people. The data collection instrument used in this research is the football dominant physical condition test and measurement, namely: aerobic endurance, speed, agility, power, flexibility, and leg power. The results of this study found that the dominant physical ability to play football of the SSB Barona Banda Aceh club in 2019 with the test performing technique which includes tests: 1) Leg power ability is in the category of "Good", obtained from 10 out of 25 players, 2) Flexibility is in the category of "Poor", obtained from 19 out of 25 players, 3) Power is in the category of "Moderate", obtained from 10 out of 25 players, 4) Agility is in the category of "Moderate", obtained from 10 out of 25 players, 5) Speed is in the category of "Good", obtained from 12 out of 25 players, 6) Aerobic endurance is in the category of "Moderate", obtained from 12 out of 25 players.

Keywords: Dominant Physical Condition.

I. Background
Sports is a physical activity involving the nature of the game and struggles against one's own or with others. Sports activities include the match style hence the activities must be carried out with a sportive spirit and soul. Sports provides the possibility of achieving mutual understanding and enhancing solidarity as well as selflessness. Moreover, sport also results in a healthier physical and spiritual of a body which will eventually form a good quality human being.

In sports, one of the realities that can be observed is that the improvement of sports achievements is rapidly increasing over time both at regional, national, and international levels. This can be seen in the continuous record-breaking in certain sports in terms of effective and efficient techniques supported by good physical condition. The principles of sports science approach are required to achieve an optimal achievement in each sport. Harsono (2015:45) mentioned that "Four conditions are required if one want to have sport achievements. The conditions include: 1) the physical equipment, 2) the development of techniques, 3) mental development, 4) the maturity of a champion".

Football is a dynamic sport that required a good physical condition. Good physical condition is a basic requirement that must be possessed by a football player. This is due to the nature of the football games in which it requires the players to run at all times while chasing, dribbling, grabbing the ball from the opponent, moving in all directions quickly, moving the feet and hands and head precisely, and jumping with precision. In coaching...
football teams, many components must be considered by the coaches so that the team can achieve maximum performance. Some of these components include the physical, technical, tactical, strategic, and mental components of the team members. According to Herwin (2006: 78), "football is a group game that involves several components including physical, technical, tactical, and mental components".

Physical condition is an integral part of the components that cannot be separated, either in improving or maintaining it. The dominant physical condition in football include endurance, speed, power, strength, and flexibility. It is in accordance with Nurhasan, (1991: 234), the physical condition factors needed in football are "general and local endurance, strength, power, speed, and flexibility".

Based on observations of the researchers, the football players of SSB Barona Banda Aceh conducts the exercise 3 times a week, namely on Wednesday, Thursday, and Sunday. SSB Barona also often conducts a trial game with other football clubs around Banda Aceh and Aceh Besar, yet the SSB Barona rarely wins and sometimes even loses. Based on the aforementioned conditions, the authors intend to study the dominant physical abilities of SSB Barona Banda Aceh football players.

II. Research Methodology

This research utilizes a descriptive quantitative approach with an evaluation technique. A descriptive quantitative approach is in which the research data is in the form of figures and analysis using statistics. This research uses the total sampling technique with a total population of 25 athletes. Data collection was conducted by measuring the ability of dominant physical condition using several instruments, namely 1) Power consists of a leg dynamometer test, 2) Power consists of a Standing Broad Jump test, 3) Flexibility consists of a Sit & Reach test, 4) Agility consists of an Illinois Agility Run Test. The Speed Test consists of a 50meter running test, 5) General endurance or cardiovascular endurance consists of a 12-minutes running test. The study was conducted in December 2019. The collected data was then analyzed using average (mean) and percentage analysis formula.

III. Results

The data of the research results performed on SSB Barona Banda Aceh football players in 2019 is obtained in term of initial data in the form of scoring shown in table 3.1 below:

**Table 3.1. Results**

<table>
<thead>
<tr>
<th>No.</th>
<th>Sample Name</th>
<th>Strength (kg)</th>
<th>Flexibility (cm)</th>
<th>Power (cm)</th>
<th>Agility (Second)</th>
<th>Speed (Second)</th>
<th>Endurance (km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Teuku Shauqi A</td>
<td>149.2</td>
<td>12</td>
<td>1.95</td>
<td>18.2</td>
<td>7.5</td>
<td>2.10</td>
</tr>
<tr>
<td>2</td>
<td>Mfarhan Taslyma</td>
<td>77.0</td>
<td>15</td>
<td>1.61</td>
<td>18.3</td>
<td>6.8</td>
<td>2.53</td>
</tr>
<tr>
<td>3</td>
<td>Balia Adzaari</td>
<td>218.0</td>
<td>14</td>
<td>1.90</td>
<td>18.3</td>
<td>7.9</td>
<td>2.15</td>
</tr>
<tr>
<td>4</td>
<td>Raja Aditya</td>
<td>95.5</td>
<td>8</td>
<td>2.21</td>
<td>16.2</td>
<td>7.7</td>
<td>2.21</td>
</tr>
<tr>
<td>5</td>
<td>Adam Abdullah</td>
<td>198.2</td>
<td>18</td>
<td>2.23</td>
<td>18.2</td>
<td>6.5</td>
<td>2.19</td>
</tr>
<tr>
<td>6</td>
<td>M. Zayyad</td>
<td>215.0</td>
<td>13</td>
<td>1.91</td>
<td>18.8</td>
<td>6.6</td>
<td>2.24</td>
</tr>
<tr>
<td>7</td>
<td>Teuku Muda</td>
<td>218.5</td>
<td>15</td>
<td>1.35</td>
<td>17.5</td>
<td>8.3</td>
<td>2.52</td>
</tr>
<tr>
<td>8</td>
<td>M. Yusrizal Aziz</td>
<td>225.0</td>
<td>7</td>
<td>1.44</td>
<td>18.4</td>
<td>8.3</td>
<td>2.09</td>
</tr>
<tr>
<td>9</td>
<td>Mumfarjan</td>
<td>181.2</td>
<td>11</td>
<td>2.20</td>
<td>18.7</td>
<td>7.9</td>
<td>2.04</td>
</tr>
<tr>
<td>10</td>
<td>Fahkrianda</td>
<td>1440</td>
<td>12</td>
<td>1.54</td>
<td>16.1</td>
<td>7.5</td>
<td>1.95</td>
</tr>
<tr>
<td>11</td>
<td>Rizki Irwanda</td>
<td>83.0</td>
<td>15</td>
<td>1.96</td>
<td>18.2</td>
<td>8.0</td>
<td>2.70</td>
</tr>
<tr>
<td>12</td>
<td>M. Subhan</td>
<td>218.0</td>
<td>10</td>
<td>2.12</td>
<td>18.9</td>
<td>6.7</td>
<td>1.98</td>
</tr>
<tr>
<td>13</td>
<td>Raja Atif</td>
<td>217.5</td>
<td>18</td>
<td>2.25</td>
<td>18.3</td>
<td>6.3</td>
<td>2.50</td>
</tr>
<tr>
<td>14</td>
<td>M. Angkasa</td>
<td>218.5</td>
<td>14</td>
<td>1.60</td>
<td>18.2</td>
<td>6.5</td>
<td>2.65</td>
</tr>
<tr>
<td>15</td>
<td>Haikal Munandar</td>
<td>175.5</td>
<td>15</td>
<td>2.21</td>
<td>18.7</td>
<td>7.9</td>
<td>2.11</td>
</tr>
<tr>
<td>16</td>
<td>Herman</td>
<td>189.5</td>
<td>14</td>
<td>2.22</td>
<td>17.8</td>
<td>6.8</td>
<td>2.40</td>
</tr>
</tbody>
</table>
IV. Mean Analysis

Based on the results of the dominant physical ability test on the SSB Barona Banda Aceh Football Club player in 2019. As shown in the table above, then the data obtained will be analyzed to find the average value, as follows:

a. Analysis of The Average Value of Leg Strength

\[
\bar{x} = \frac{\sum x}{n} = \frac{4278.6}{25} = 171.14
\]

b. Analysis of Average Flexibility

\[
\bar{x} = \frac{\sum x}{n} = \frac{48.48}{25} = 1.93
\]

c. Analysis of Average Power

\[
\bar{x} = \frac{\sum x}{n} = \frac{429.9}{25} = 17.19
\]

d. Analysis of Average Agility

\[
\bar{x} = \frac{\sum x}{n} = \frac{181.1}{25} = 7.24
\]

e. Analysis of Average Speed

\[
\bar{x} = \frac{\sum x}{n} = \frac{57.49}{25} = 2.29
\]

Based on the analysis of the dominant physical ability of the SSB Barona Banda Aceh football club players in 2019, the average leg strength is 171.14 kg. The average flexibility is 13.04 cm. The average leg power is 1.93 kg cm. The average agility is 7.24 seconds. The average speed is 2.29 m/s.
The average agility is 17.19 seconds. The average running speed of 50 meters is 7.24 seconds. The average aerobic endurance is 2.29 km.

V. Percentage Analysis

Based on the data from the analysis of the average dominant physical ability, then the percentage of each level of the dominant physical ability of the SSB Barona Banda Aceh Football Club players in 2019 are calculated as follows:

a. The Calculation of Leg Strength Percentage

\[ P = \frac{F}{N} \times 100\% \]

- Very Good: \( \frac{0}{25} \times 100\% = 0\% \)
- Good: \( \frac{9}{25} \times 100\% = 36\% \)
- Fair: \( \frac{15}{25} \times 100\% = 60\% \)
- Poor: \( \frac{10}{25} \times 100\% = 40\% \)

The following figure shows the leg strength percentage value of the SSB Barona Banda Aceh Football Club players in 2019:

b. The Calculation of Flexibility Percentage

\[ P = \frac{F}{N} \times 100\% \]

- Very Good: \( \frac{0}{25} \times 100\% = 0\% \)
- Good: \( \frac{6}{25} \times 100\% = 24\% \)
- Fair: \( \frac{12}{25} \times 100\% = 48\% \)
- Poor: \( \frac{8}{25} \times 100\% = 32\% \)
- Very Poor: \( \frac{1}{25} \times 100\% = 4\% \)

The following figure shows the flexibility percentage value of the SSB Barona Banda Aceh Football Club players in 2019:
The Overview of the Dominant Physical Condition of the Ssb Barona Banda Aceh Football Athletes

Graphic of SSB Barona Banda Aceh Football Club Player’s Flexibility in 2019

The following figure shows the power percentage value of the SSB Barona Banda Aceh Football Club players in 2019:

Graphic of SSB Barona Banda Aceh Football Club Player’s Power in 2019

c. The Calculation of Power Percentage

\[ P = \frac{F}{N} \times 100\% \]

- Very Good: \( \frac{0}{25} \times 100\% = 0\% \)
- Good: \( \frac{0}{25} \times 100\% = 0\% \)
- Fair: \( \frac{25}{25} \times 100\% = 40\% \)
- Poor: \( \frac{25}{25} \times 100\% = 28\% \)
- Very Poor: \( \frac{25}{25} \times 100\% = 32\% \)

The following figure shows the power percentage value of the SSB Barona Banda Aceh Football Club players in 2019:

d. The Calculation of Agility Percentage

\[ P = \frac{F}{N} \times 100\% \]

- Excellent: \( \frac{0}{25} \times 100\% = 0\% \)
- Very Good: \( \frac{2}{25} \times 100\% = 8\% \)
- Good: \( \frac{2}{25} \times 100\% = 28\% \)
The Overview of the Dominant Physical Condition of the Ssb Barona Banda Aceh Football Athletes

Fair  \( \frac{10}{25} \times 100\% = 40\% \)
Poor  \( \frac{6}{25} \times 100\% = 24\% \)

The following figure shows the agility percentage value of the SSB Barona Banda Aceh Football Club players in 2019:

![Graphic of SSB Barona Banda Aceh Football Club Player’s Agility in 2019](image)

\[ e. \text{ The Calculation of Speed Percentage} \]
\[ P = \frac{F}{N} \times 100\% \]

Excellent  \( \frac{0}{25} \times 100\% = 0\% \)
Very Good  \( \frac{0}{25} \times 100\% = 0\% \)
Good  \( \frac{19}{25} \times 100\% = 76\% \)
Fair  \( \frac{3}{25} \times 100\% = 12\% \)
Poor  \( \frac{6}{25} \times 100\% = 24\% \)

The following figure shows the speed percentage value of the SSB Barona Banda Aceh Football Club players in 2019:

![Graphic of SSB Barona Banda Aceh Football Club Player’s Power in 2019](image)

\[ f. \text{ The Calculation of Aerobic Endurance Percentage} \]
\[ P = \frac{F}{N} \times 100\% \]
The Overview of the Dominant Physical Condition of the SSB Barona Banda Aceh Football Athletes

Excellent \( \frac{6}{25} \times 100\% = 0\% \)

Very Good \( \frac{4}{25} \times 100\% = 0\% \)

Good \( \frac{12}{25} \times 100\% = 48\% \)

Fair \( \frac{24}{25} \times 100\% = 96\% \)

Poor \( \frac{20}{25} \times 100\% = 20\% \)

Very Poor \( \frac{4}{25} \times 100\% = 16\% \)

The following figure shows the endurance percentage value of the SSB Barona Banda Aceh Football Club players in 2019:

Based on the data analysis and the result of the research, it can be concluded that the components of the dominant physical condition of SSB Barona Banda Aceh Football Club players in 2019 are in the average category of fair physical condition.

REFERENCES


