VO₂Max Women's Football Athletes Rokan Hulu Riau

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ABSTRACT
Endurance is one of the elements of physical condition that is indispensable in football. Football is a long game which is about 90 minutes. During this time, players are required to make various movements both with the ball and without the ball to look for opportunities to score goals or defend against opponent attacks. Of course, this will make you tired if a player does not have good endurance. Compared to other components such as speed, agility, flexibility, and strength, endurance is the most important. Because the ability to perform movements during the game for a long duration is the most important. The purpose of this study was to determine the extent of cardiac endurance of female soccer athletes in Rokan Hulu. This type of research is descriptive qualitative with a cross-sectional design. The population is 38 athletes using the total sampling technique. The method used in this research is a test survey method. The first stage of this research is to prepare, communicate with athletes for their willingness to be a sample. Second, perform a test using the Multistage Fitness Test instrument. The data collection technique uses a multi-stage test or Multi-stage fitness test (MFT). Analysis of the data used is the percentage. The results showed that athletes had VO₂max in the less category (63.16%), while the rest were in the less (21.05%), and moderate (15.79%).

Keywords: Vo2Max; Woman's Football.

INTRODUCTION

Football is a very interactive sport so the Indonesian people are very fond of this sport, both men and women, children and adults. The goal of the game of football is to get as many balls into the opponent's goal as possible. It's not an easy thing to get the ball into the opponent's goal if you don't have technique, tactics, strategy, and even physicality in a soccer game with a time of 2x45 minutes and even more if there is an extra time of 2x15 minutes. Physical condition is the foundation that must be possessed by a football player to be able to perform explosive movements and movements for a long enough time.
A good football player is not just mastering technique and tactics, but a good player must be able to defend his body to make movements, at the same time the opposing player is not able to defend his body to maximize the opportunity to score a goal against the opponent's goal. In other words, football players must have good physical conditions so that achievement can be achieved optimally (Gumantan, A. Eko BF, 2020). The components that must be mastered in sports are endurance, strength, speed, agility, accuracy, power, balance, and accuracy (Sofyan Hanif, 2015). Football is a sport that requires complex factors or elements to be able to play well or achieve (Heru AR, 2019). Yulifri, 2010 said that to carry out good tactical techniques, the foundation is good endurance.

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Football is not only played by men, but women also play this game. Like the Putri Rokan Hulu soccer team, which is familiar in the community with the abbreviation PRFC. Putri Rohul FC was established on December 27, 2019, and is located in Rokan Hulu Regency, Riau Province. According to observations made by researchers some time ago during a trial with the Putri Duri Bengkalis Team, there are several things that researchers can summarize the shortcomings/problems of PRFC players. 1.) The endurance of the players to maintain playing for 2 rounds, seen when the passing and shooting players were not optimal in the last 10 minutes 2.) Movement coordination, the players' dribbling was not good enough, and 3.) Poor communication, was seen when players miss passes and often lose the ball.

This situation is a factor that must be considered by all parties involved. To answer the above problems, research is needed. With this research, we can answer and reveal
these problems, so that we can know the endurance of the female athletes of Rokan Hulu.

METHOD

The research method used is a survey method with test and measurement collection techniques. The form or method of this research is descriptive qualitative research. The qualitative descriptive research method is an analysis of the work of grouping (categorizing) symbols other than numbers, the symbols referred to are generally words, phrases, or sentences. Analysis of the data used is the percentage. The sample in this study were all female athletes from Rokan Hulu. The sample of this study was female athletes from Rokan Hulu, totaling 38 athletes. The test instrument used in this study was the Multistage Fitness Test (MFT) (Fenanlampir & Faruq, 2015)

RESULTS AND DISCUSSION

The total subjects involved until the end of the study were 38 athletes. All research subjects are female athletes from Rokan Hulu. Subjects did the Multistage Fitness Test (MFT) to get data on the cardiac endurance of the female soccer athlete Rokan Hulu. The test results are then presented in the form of a distribution table as follows:

<table>
<thead>
<tr>
<th>Classification</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very less</td>
<td>24</td>
<td>63.16</td>
</tr>
<tr>
<td>Less</td>
<td>8</td>
<td>21.05</td>
</tr>
<tr>
<td>Currently</td>
<td>6</td>
<td>15.79</td>
</tr>
<tr>
<td>Well</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Very well</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Amount</td>
<td>38</td>
<td>100.00</td>
</tr>
</tbody>
</table>

Based on table 1, most athletes have VO2max in the very less category (63.16%), while the rest are in the less (21.05%), and moderate (15.79%).
DISCUSSION

Based on the data analysis, it can be seen that the female soccer athletes of Rokan Hulu who have vo2 max on the criteria less once are 24 (63.16%) athletes, in the less category 8 (21.05%) athletes, and on the moderate criteria 6 (15.79) athletes. From these results, it can be said that vo2 max plays an important role in the achievement of soccer (Bryantara, 2016). As reinforced by previous research, soccer is an aerobic activity that requires a lot of oxygen. The maximum speed of energy used through the aerobic system which requires oxygen is limited by the maximum speed of the cardiovascular respiratory system in sending oxygen to the muscles, so a football player needs to have a good Vo2 max to supply oxygen to support their activities during the match (Zakiyuddin & Rifki, 2018)

Vo2 max describes the body's level of getting oxygen, sending muscle cells and other cells, and using it in energy use, removing metabolic waste that inhibits physical activity (Nirwandi, 2018). Football, which is a sport with a fairly long duration, really requires movements that require cardiorespiratory endurance Maximum Oxygen Volume (Vo2 max) in this case plays an important role as a solution. Football players will not show their best performance if they don't have a good Vo2 max value. Because Vo2 max is the maximum volume of oxygen processed by the human body during intensive activities. In theory, vo2 max is one of the requirements in achieving achievement (Wulandari et al., 2004; Bryantara, 2016)

The results of this study are directly proportional to the existing theory. Facts in the field, the University of Pasir Pengaraian Football Club (UPP FC) has not been able to achieve achievements because of the vo2 max factor possessed by athletes. The results of
this study become an important study for coaches to be able to improve the vo2 max of their athletes.

**CONCLUSIONS AND SUGGESTIONS**

**Conclusions**

Based on the results of the study the vo2 max capacity of the female soccer athlete of Rokan Hulu in the criteria is not very low. Currently, Rokan Hulu women's soccer athletes have never won at district or provincial level competitions. This is because the vo2 max capacity of the athlete has not been fully utilized to improve technical and tactical training, so the results of this study can be used as a guideline to improve other aspects such as technique and tactics.

**Suggestions**

This is because the vo2 max capacity of the athlete has not been fully utilized to improve technical and tactical training, so the results of this study can be used as a guideline to improve other aspects such as technique and tactics. For further research, the results of this study can be developed into several variables to determine the inhibiting factors for achievement in football in particular and other sports in general.

**REFERENCES**


