Overview of Men's Basketball Team Cardiorespirational Endurance
SMA Negeri 2 BITUNG

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Abstract: Cardiorespiratory endurance is a person's ability to perform excessive physical activity without feeling excessive fatigue after the activity. This research uses descriptive research. The instrument used in this study uses the Rockport Test. The sample in this study was taken using the total sampling technique, namely 20 people. The data analysis technique used in this research is descriptive analysis technique using SPSS. The results of the research were the level of cardiorespiratory endurance for the men's basketball team at SMA Negeri 2 Bitung for the less category with 11 people (55%), the enough category with 6 people (30%) and the lowest in the good category with 3 people (15%).

Keywords: Basketball team, cardiorespirational, SMA negeri 2 Bitung

A. INTRODUCTION

The game of basketball is increasingly popular among students in North Sulawesi, with the evidence that many tournaments are held between students, both at the junior high school, high school/vocational school levels as well as at the tertiary level. As well as open basketball tournaments between clubs where the average player is of student age. This passion for the game of basketball is accompanied by an increase in the number of participants participating in various kinds of championships that are held every year, their interest is not only limited to recreational purposes but an achievement.

Basketball is an aerobic sport that has a game duration of 4 x 10 minutes, between quarters 1, 2, 3 and 4 there is a 30-second rest period and 5 minutes of additional time if there is the same score at the end of the game until there is a score difference. For this reason, athletes must have good cardiorespiratory endurance so they can play optimally without experiencing excessive fatigue during the competition.

To get a good physical condition, the trainer must provide more physical training sessions in the form of running or jogging indoors or outdoors to increase cardiorespiratory endurance. Seeing the location of SMA Negeri 2 Bitung which is breada in Bitung City with a geographical location between 1023'23"-1035'39" North Latitude and 1250'43" – 1250 18'13"East and a land area of 304 km2 which has an average temperature - an average of 28 320C and a relative humidity level of 83-87%. Can be a training benchmark in providing training portions. Trainers must also carry out awareness to evaluate the cardiorespiratory endurance of athletes so they can see whether the training program provided is going well, in this case experiencing an increase in cardiorespiratory endurance.

Based on the results of the last game the Men's Basketball Team of SMA Negeri 2 Bitung...
participated in which was held by a school in Bitung City, the Men's Basketball Team of SMA Negeri 2 Bitung only took 4th place after facing the Don Bosco Bitung Catholic High School men's Basketball Team. One of the main factors causing the defeat of the SMA Negeri 2 Bitung Men's Basketball Team at that time, when the game entered the third and fourth quarters, some of the players began to look tired and lose concentration. This shows that the lack of cardiorespiratory endurance possessed by some Bitung 2 SMA Negeri 2 Men's Basketball players affects the performance of athletes when competing.

B. RESEARCH METHODOLOGY

a. Types of research
This type of research is descriptive research. The descriptive method is a method of examining the status of a group of people, an object, a set of conditions, a system of thought or a class of events in the present.

b. Operational Definition of Research Variables
1. Research variable
The research variable is cardiorespiratory endurance.
2. Definition of research variables
Cardiorespiratory Endurance is the ability of the body condition of the SMA Negeri 2 Bitung Men's Basketball Team to carry out physical activities for long periods of time, without excessive fatigue when they have finished doing physical activities.

c. Time and place of research
1. Research time
This research was conducted in April-June 2023
2. Research Place
This research was conducted in the Cakalang Sari field, Bitung City

d. Population and Sample
1. Population
The population in this study were the entire Men's Basekt Team of SMA Negeri 2 Bitung, totaling 20 people.
2. Sample
The sample in this study amounted to 20 people, using a sampling technique that is total sampling.

e. Research Instruments
The instrument used in this study is the Rockport test. Equipment and supplies needed are:
1. Stopwatch
2. Whistle
3. Stationery

f. Data collection technique
Data collection techniques using the Rockport test. With the following steps:
1. Observation
2. Rockport test (1600 meter test)
a. Before carrying out the test, stretch the whole body, especially the leg muscles and end with a slow warm-up in the form of walking.
b. When starting the test, the timer is turned on.
c. Walk fast or run constantly as much as possible at a predetermined distance (1.6 km), on a flat track: straight or rotating (standard football field: circumference 400 m)
d. Test takers can individually or in groups, stand behind the "start" line.
e. After the signal "in vain" the test taker takes a standing start position, ready to walk/run.
f. After the signal "yes" the test participants ran to the finish line, covering a distance of 1600 m.
g. Record the travel time (minutes/seconds) and enter it in the table.

<table>
<thead>
<tr>
<th>Age</th>
<th>BS</th>
<th>B</th>
<th>C</th>
<th>K</th>
<th>KS</th>
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<td>7'22&quot;-8'20&quot;</td>
<td>8'21&quot;-9'19&quot;</td>
<td>&gt;9'20&quot;</td>
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</tbody>
</table>

**g. Data analysis technique**
The data analysis technique used in this study uses correlation data analysis techniques using excel and SPSS 17.0.

**C. RESULTS AND DISCUSSION**

1. **Research result**
The level of cardiorespiratory endurance of the respondents in the less category was 11 (55%), the sufficient category was 6 (30%) and the good category was 3 (15%). Meanwhile, there are no very poor and very good categories.

**Indonesian Physical Fitness Test Results**
Table 4.2 Levels of Respondents’ Cardiorespiratory Endurance

<table>
<thead>
<tr>
<th>No</th>
<th>Category</th>
<th>Frequency</th>
<th>Percentage (%)</th>
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<tbody>
<tr>
<td>1</td>
<td>Very well</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>Good</td>
<td>3</td>
<td>15</td>
</tr>
<tr>
<td>3</td>
<td>Enough</td>
<td>6</td>
<td>30</td>
</tr>
<tr>
<td>4</td>
<td>Not enough</td>
<td>11</td>
<td>55</td>
</tr>
<tr>
<td>5</td>
<td>Less Once</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Amount</td>
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</tr>
</tbody>
</table>

2. Discussion

Based on the results of the research on the cardiorespiratory endurance level of the men's basketball team at SMA Negeri 2 Bitung, the ages of the respondents ranged from 13 to 19 years, with different levels of cardiorespiratory endurance, students who had a cardiorespiratory endurance level of less than 55% or a total of 11 students, good category. 15% or a total of 3 students and a sufficient category of 30% or a total of 6 students. There are no very good and very poor categories. It can be seen that there are still many male basketball players at SMA Negeri 2 Bitung who have low levels of cardiorespiratory endurance.

3. Conclusion

a. For sports teachers and coaches, especially basketball, to always control the cardiorespiratory endurance of the players and create training programs to increase cardiorespiratory endurance, so that for players who are still lacking, their cardiorespiratory endurance can be improved.

b. For students, they can improve their cardiorespiratory endurance with regular exercise and maintain a healthy lifestyle at home and at school in order to get good performance when participating in basketball matches.

c. This research can be used as a reference to develop and refine research on cardiorespiratory endurance.

REFERENCE


5. Karim, SA (2011). Cardiorespiratory Endurance Level of Grade VIII Middle School Students in 2015 at Pakem 2 Public Middle School, Sleman Special Region of


