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Evaluation of the Physical Condition of NTB Pelatda Athletes for the Kabaddi Sport Branch Towards Pon XXI Aceh North Sumatra in 2024

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Abstract
Physical condition is a prerequisite that an athlete must have in order to improve and develop optimal sporting performance. One of them is the NTB Kabaddi athlete who will compete in the XXI Aceh-North Sumatra PON event in 2024. The problem in this research is what the physical condition of the NTB regional athletes in the Kabaddi sport will be in the 2024 Aceh-North Sumatra PON XXI. The aim is to determine their physical condition. NTB regional athlete in the Kabaddi sport for PON XXI Aceh-North Sumatra in 2024. Physical condition includes Agility, Endurance and Leg Muscle Strength. This research is a quantitative descriptive study carried out by total sampling on NTB Pelatda Kabaddi athletes, totaling 12 male athletes and 12 female athletes. In the agility test (Illinois Agility Run Test), the average for male athletes was 17.17 in the Fair category, while the female athletes showed an average of 19.14 in the Fair category. The endurance test (MFT or Beep Test) shows that the average endurance test for male athletes is 43.9 in the Poor category, while female athletes have an average of 34.8 in the Poor category. And the leg muscle strength test (Leg Dynamometer) shows that the average score for the leg muscle strength test for male athletes is 229 in the good category, for female athletes it is 177 in the good category. From these results, when compared with the previous test, from the results of this evaluation there are still components of physical condition that do not meet the expected criteria, but these results can be used as a benchmark and motivation for athletes to prepare their physical condition better in the future.

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1. INTRODUCTION

Physical condition is a very important element in every sport, therefore physical condition training needs to receive serious attention and be planned carefully and systematically so that the level of physical fitness and functional ability of the body's organs becomes better. According to Hanafi (2019), the components of physical condition can be divided into ten, namely strength (*strength*), durability (*endurance)*, muscle explosive power (*muscular power*), speed (*speed*), flexibility (*flexibility*), balance (*balance*), coordination *(coordination*), agility (*agility*), precision (*accuracy*), reaction (*reaction*). During the preparation period before the match, athletes will actually be trained and improve their physical condition. So that the athlete is ready to face the pressures generated in the competition, both in the form of mental pressure and physical pressure. Before a competition, an athlete must reach a good level of fitness to deal with the stress that will be faced in the competition.

To face the XXI Aceh-North Sumatra National Sports Week (PON) which will take place in September 2024. KONI NTB is implementing a Regional Training Center (PELATDA) which is expected to be a forum for coaching, formation and training for athletes to be able to compete in the Aceh-North Sumatra PON. will come. Not only is this training camp also aimed at finding out the physical condition of the athletes as seen from each test result carried out during the training camp.

NTB Province has passed 41 sports, out of the 67 sports that will be competed. One of the Kabaddi sports is the first to take part in the XXI Aceh-North Sumatra PON 2024. Kabaddi is a sport that emphasizes teamwork in its implementation. Apart from teamwork, in the sport of Kabaddi you also need to be in good physical condition. Biomotor component factors such as agility and strength are the basics needed in the sport of kabaddi. Apart from that, endurance or aerobic fitness is also an element of general physical condition that must be possessed by every

athlete in a sport. Of the many existing components, each has a different role in relation to the application of techniques in the sport of Kabaddi.

In this case, researchers want to know whether there are changes in the physical condition of Kabaddi athletes who will compete in the Aceh-North Sumatra PON in 2024. With this, the physical conditions that will be studied are the dominant physical condition components of Kabaddi regarding endurance, leg muscle strength and agility.

Based on the results of data analysis carried out on the physical test results of NTB Kabaddi athletes from several components of physical condition measured on January 15 2024, it shows that the scores obtained by male athletes in the leg muscle strength test can be said to be in the expected category (in the Fair category).) Meanwhile, the results of several other tests, namely the agility test and endurance test, show scores that are still far from the expected category (in the Poor category) in accordance with the norms in the test *Illinois Agility Run, Leg Dynamometer* and MFT.

From the background explanation above, researchers want to evaluate the physical condition of Kabaddi athletes who will compete in XXI Aceh-North Sumatra PON in 2024. Because physical condition is an important factor needed for athletes to be able to play optimally. Therefore, as a researcher, I conducted research entitled "Evaluation of the Physical Condition of NTB Pelatda Athletes for the Kabaddi Sport Branch towards XXI Aceh-North Sumatra PON 2024" to determine the physical condition of Kabaddi athletes, including endurance, leg muscle strength and agility.

2. RESEARCH METHOD

This research is quantitative descriptive. Quantitative descriptive research method is a method that aims to create a picture or description of an objective situation using numbers, starting from data collection, interpretation of that data. as well as appearance and results (Arikunto, 2006). The method in this research is a survey method using test and measurement instruments. Tests carried out include; MFT test (multistage fitness test) to measure athlete's endurance, Leg Dynamometer test to measure athlete's leg muscle strength and Illinois Agility Run test to measure athlete's agility.

According to Sugiyono (2010) population is a generalized area consisting of objects or subjects that have certain quantities and characteristics determined by researchers to be studied and then concluded. Meanwhile, according to Arikunto (2010) the population is the entire research subject. The population in this study were 24 NTB regional athletes in the Kabaddi sport. Consisting of 12 men and 12 women. Where 7 of the 12 players are core players and 5 are reserves.

The sample is a portion or representative of the population studied (Arikunto, 2010). According to Sugiyono (2010) the sample is part of the number and characteristics of the population. Sampling in this research was carried out by total sampling. According to Sugiyono (2007) total sampling is a sampling technique where the number of high school samples is the same as the population, where the sample data used must meet the specified inclusion criteria. The criteria for this sample were all 24 NTB Kabaddi regional athletes. Consisting of 12 men and 12 women. Where 7 of the 12 players are core players and 5 are reserves.

There are several research instruments used in this research, namely:

1. Endurance test (*Vo2Max*) by using MFT (*multi stage fitness test*) or what is usually called a test beep which aims to measure endurance. Required tools such as; *sound system*, *tape recorder*, *cone*, 20 meter running track, test form and stationery.

   Test procedure:

   a. Athletes warm up for 10 minutes
   b. Researchers created a 20-meter area and marked each end with marker cones.
   c. Researchers started CD and athletes started testing
   d. If the athlete arrives at the end of the shuttle before the beep, the athlete must wait for the beep and t 29 running

e. If an athlete is not considered capable, if they cannot touch or set foot on the line twice in a row.
f. Researchers recorded the rate and number of lifts completed at that rate by the athletes when they were pulled

Rating:

Table 1. MFT Test Scoring Norms

Gender	Norma	VO2Max (mm/kg BB/min)
Daughter	Very well	≥ 42,0
	Good	39,0 – 41,90
	Enough	35,0 – 38,90
	Not enough	31,0 – 34,90
	Less than once	≤ 30,90
Son	Very well	≥ 56,0
	Good	51,0 – 55,90
	Enough	45,20 – 50,90
	Not enough	38,40 – 45,10
	Less than once	≤ 38,30

Source: *Runners Case* (2023)

2. Agility test using (*Illinois Agility Run test)* which aims to measure agility. The tools required for this test are; eight cones, *stopwatch*, assistant, surface *non-slip* flat.

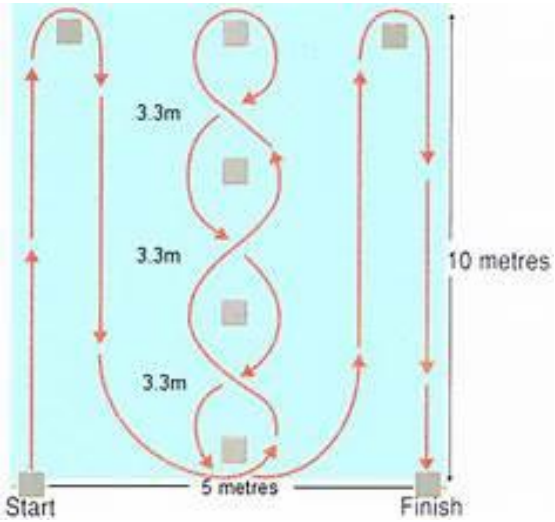

Figure 1. Trajectory *Illinois Agility Test*

Procedure:

a. Athletes warm up for 10 minutes.
b. Mark the field area with an area of 10 x 5 meters, place 4 *cone* at every corner of the field
c. *Cone* which is located on the left corner of the field is used as the start point and the cone on the right corner of the field is used as the finish point
d. *Cone* The remaining ones are placed in the middle of the field area, with a distance between each *cone* 3,3 meter
e. The assistant explains the running path that must be followed
f. People try to take the prefix on *cone start*, then when the assistant gives the signal "*go*" then people try to run as fast as possible following the running track until the finish
g. During the run, people should not touch *cone*

h. The assistant records the time achieved and checks it with the table *Agility Run Rating*.

Table 2. Test Scoring Norms *Illinois Agility Run*

Gender	Norma	Score (second)
Daughter	Very well	≥17,0
	Good	17,0 – 17,9
	Enough	18,0 – 21,7
	Not enough	21,8 – 23,0
	Less than once	≤ 23,0
Son	Very well	≥ 15,2
	Good	15,2 – 16,1
	Enough	16,2 – 18,1
	Not enough	18,2 – 19,3
	Less than once	≤ 19,3

Source: Davis B. et al; Physical Education and Sports Studies; 2000

3. Test leg muscle strength using a measuring instrument (*leg dynamometer*) aims to measure leg muscle strength. Tools required, namely *leg dynamometer.* As in the image below:

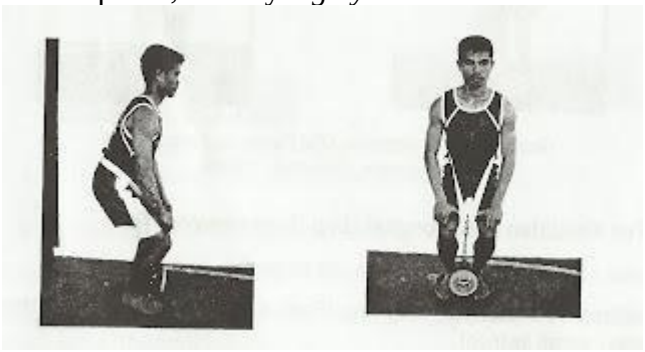

Figure 2. Tools *leg dynamometer*

Procedure:

i. Teste wears a waist belt, then stands with both knees bent to form an angle of ± 45^0, then the waist belt is linked to *leg dynamometer*.
j. After that, the testee tried as hard as he could to straighten his legs.
k. After the test, straighten both legs to the maximum, then we look at the needles of the instruments showing what number.
l. This number states the strength of the testis leg muscles.

Table 3. Test Scoring Norms *Leg Dynamometer*

Gender	Norma	Load (kg)
Daughter	Very well	≥ 219.50
	Good	171,50 – 219,00
	Enough	127,50 – 171,00
	Not enough	81,50 – 127,00
	Less than once	≤ 81,00
Son	Very well	≥ 259,50
	Good	187,50 – 259,00
	Enough	127,50 – 187,00
	Not enough	87,50 – 127,00

Less than once	≤ 84,00

Source: (Albertus, 2015)

The data collection techniques used were action tests and documentation. Meanwhile, the data analysis technique used is descriptive statistical techniques. Using quantitative descriptive analysis techniques with percentages to analyze the data used in this research. According to Arikunto (2003: 245-246), further according to Sugiyono (2010) "descriptive statistics are statistics that are used to analyze data by describing or illustrating the data that has been collected from the objects that have been studied as they are without the intention of making generally accepted conclusions or generalizations. . The formula quoted from Sudijono's book (2012) to calculate the percentage is as follows:

1. Mean to calculate the average

$$\mathbf{X} = \frac{\sum X}{n}$$

Information:

X = Installment-installment

∑x = Number of Values

n = Number of Individuals

Percentage

$$\mathbf{P} = \frac{n}{N}\ x\ 100\%$$

Information:

P = Percentage

n = Number of values obtained

N = Number of all values

3. RESULTS AND DISCUSSION

This research is a descriptive study which is described in accordance with the data obtained by this research entitled "Evaluation of the Physical Condition of NTB Pelatda Athletes for the Kabaddi Sport Branch towards XXI Aceh-North Sumatra PON 2024" which will describe the situation of Kabaddi athletes carrying out tests such as the following: endurance test , agility and leg muscle strength.

Physical condition is one of the basic aspects that influences athlete performance. According to Sidik (2019: 81) "physical condition is a complete unit of components that cannot be separated, either for improvement or maintenance, meaning that in the process of improving physical conditions, all existing components must be developed, even though in reality this is done with a priority system according to the needs or requirements of each sport." The components of physical condition include: agility tests, leg muscle strength and endurance in NTB Kabaddi athletes heading to PON XXI Aceh-North Sumatra measured using tests *Illinois Agility Run, Leg Dynamometer* and MFT or *Beep Test.*

Based on the research results, the results of the evaluation of the physical condition of NTB Kabaddi athletes heading to PON XXI Aceh-North Sumatra showed that the average agility test for male athletes was 17.17 in the Fair category and female athletes 19.14 in the Fair category. The average leg muscle strength test for male athletes is 229 in the good category and female athletes are 177 in the good category. and the average endurance test for male athletes was 43.9 in the Poor category and female athletes 34.8 in the Poor category. So, it can be said that there is a slight increase in the pre-research test results. In the agility test there was an increase from previously the test results showing a less than improved category **Enough**.

The improvement in physical condition was based on the training camp that NTB Kabaddi athletes had carried out from the beginning of January to the end of May. This so-called training camp definitely requires a training program to help with a more structured training plan and can achieve the desired level of physical condition.

Physical condition is a prerequisite that an athlete must have in order to improve and develop optimal sporting performance according to the characteristics, characteristics and needs of each sport. Good physical condition without being supported by mastery of playing techniques, good tactics and good mentality, the achievements that will be achieved cannot be balanced. Likewise, on the other hand, having poor physical condition but good technique, tactics and mentality also does not support maximum achievement.

The Kabaddi game is a team sport. A team will be able to present good and interesting games if the team has cohesiveness, meaning cooperation between players, discipline, and regular and complete player participation during training and matches. A good and interesting game will be realized if each player can master the basic techniques, tactics and strategies in the game of Kabaddi. To have good basic technical skills, effective tactics and strategy, every player is required to have good physical fitness or physical condition. A player who has good physical condition has several advantages, including being able to complete a training program without significant problems, maintaining better stamina or not getting tired easily during training or matches, and being able to learn relatively difficult skills easily. Excellent physical condition is very necessary for an athlete to achieve higher achievements.

4. CONCLUSIONS AND SUGGESTIONS

From the results of data analysis and discussion, it can be concluded that the physical condition of NTB Kabaddi athletes heading to PON XXI Aceh-North Sumatra, where from the evaluation results there are still components of physical condition that do not meet the expected criteria. With the evaluation results from the agility test, male athletes were 17.17 in the Fair category, female athletes were 19.14 in the Fair category. The leg muscle strength test of 229 male athletes was in the good category, and 177 female athletes were in the good category. And for the endurance test, male athletes scored 43.9 in the Poor category, and female athletes scored 34.8 in the Poor category.

From the results of this research, several suggestions are given to coaches, trainers and especially NTB Kabaddi athletes:

1. For coaches to be able to provide evaluations in the form of physical condition tests or *try out* to be able to prepare athletes for the XXI Aceh-North Sumatra PON event in 2024.
2. For coaches to pay more attention to the design of training programs that support the physical condition of athletes so that they can obtain the desired physical condition, considering that PON XXI Aceh-North Sumatra only has 4 months left before the competition. Especially in agility and endurance training programs, it should be further improved, both in terms of training intensity and repetitions.

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