

ANALYSIS OF THE PHYSICAL CONDITION OF MONDA FC MEN'S FUTSAL PLAYERS IN 2023

M. Holis Najip¹

¹Student, Faculty of Sports Science and Public Health, Mandalika University of Education, Indonesia

Corresponding Author Email: holisnajip.m24@gmail.com

ABSTRACTS	ARTICLE INFO
<p>Physical abilities are the basic abilities that players need to have to support other abilities. Players will have more self-confidence if they have excellent physical abilities. Physical training for football should start from a young age. Good physical condition can only be achieved if players carry out training correctly and load appropriately during the training process. For this reason, several things that cause the slow increase in futsal achievements include mastery of techniques, tactics, mental and physical conditions. The aim of this research is to find out the physical condition of the Putra Monda FC Futsal Players in 2023. This research is descriptive research, namely research that is solely aimed at knowing the condition of objects or events without any intention of drawing generally applicable conclusions. The population and sample in this research were 15 Monda FC futsal players. The sampling technique used in this research was Population Study. The instruments for this research are the VO2 Max endurance test, 30 meter running speed test, leg muscle strength test with the Leg and Back Dynamometer. Based on the data analysis above, the highest percentage obtained in each norm is as follows. VO2 Max the norm category is sufficient at 40%, the speed in the norm category is sufficient 40%, the leg muscle strength in the moderate norm category is 80%.</p>	<p>Article History: Received: August 12th, 2024 Revised: August 28th, 2024 Published: August 2024</p> <hr/> <p>Keywords: Physical Condition, Futsal</p>

INTRODUCTION

Sport consists of several systematic exercises with a gradual and continuous increase in load which uses energy derived from combustion which requires oxygen without causing fatigue (Ticoalu, 2015). In sports training there is regular physical conditioning training for basic movement skills and should be started at an early age (Wahyuno, 2014). To develop or improve physical condition, it can be seen from the athlete's physical abilities. Physical ability includes two components, namely the physical fitness component and the motor fitness component. Physical fitness consists of muscle strength, muscle endurance, cardiovascular endurance and flexibility. Meanwhile, the components of freshness of movement or motor skills consist of speed, coordination, agility, muscle explosive power and balance (Dumi, 2015).

Physical abilities are the basic abilities that players need to have to support other abilities. Players will have more self-confidence if they have excellent physical abilities. Physical training for football should start from a young age. Good physical condition can only be achieved if players carry out training correctly and load appropriately during the training process (Herwin, 2006: 77). The physical component is the basis for training in the process of playing futsal together with technique, which can be seen from the movements in

the game on the field which are very complex. The physical components needed as biomotor elements for futsal players according to Treadwell (in Herwin, 2006: 78) are (1) endurance, (2) aerobic endurance, (3) muscular endurance, (4) anaerobic endurance, (5) speed, (6) power, (7) flexibility, (8) strength, and body composition.

According to Salim and Mulyono (2010) every player must have DK4 abilities, meaning: endurance, strength, flexibility, speed and agility. These five factors must be possessed by players to develop to the top. Among them are speed of movement and agility which can be formed from within (innate) or from outside (because you are able to combine all the techniques you have). With the ability of movement speed and agility, it will make it easier for the player to carry the ball (dribble) towards the opponent's goal, the ball that is being dribbled is like sticking to the foot and of course easily passes through the opponent's obstacles and is not easily tricked by the opponent.

One of the sports that is currently popular among the public is futsal. If we look at currently in Indonesia, futsal is experiencing very rapid growth, such as the existence of futsal leagues or tournaments which are often held, namely amateur futsal leagues which are held in regions throughout Indonesia, international scale tournaments and tournaments between students. Training is an activity to improve sports skills by using many tools in line with the benefits and needs of the sport (Sukadiyanto, 2014). The characteristics of the futsal game include speed endurance, strength endurance and agility for a long time (Lhaksana, 2011). The sport of futsal is starting to spread to Indonesia. It quickly gained a place in the hearts of football fans. Starting from school environments, campuses, to companies. Futsal is a sport that is suitable for someone to do and is an alternative sport for football fans who experience inappropriate weather outside (Asmar Jaya, 2008:2). The increasingly narrow space in urban areas is an obstacle for Futsal fans to play. Futsal can be played indoors or outdoors and does not require a large space, so futsal is a practical sport. Sahda Halim (2009:5) even though it is relatively new, futsal is able to attract the interest of many people because this game, which is similar to football, is very easy for anyone to play. This is very interesting because people who don't have enough time during the day to play football can channel their desires by playing futsal at night in a room with lights. Something that is hard to find in football. John D. Tenang (2008:17) states that the futsal sport game develops the futsal playing skills of each futsal sport player. Andi Irawan (2009:5) states that futsal is a very fast and dynamic game. In terms of the relatively small field, there is almost no room for making mistakes. Justinus Lhaksana (2012:7) futsal is a team sport. High collectivism will increase achievement, who makes the goal is not at all important, what is important is the goal. Winning and losing happen in all sports. There is no player who has the most merit in a team, only a good team will make a star player.

The Monda FC futsal club is one of the futsal clubs located in Montong Dao Village, Masbagik Utara Baru District, East Lombok Regency, West Nusa Tenggara Province, which is one of the many futsal clubs that actively participates in futsal tournaments in East Lombok. It cannot be denied that the rapid development of futsal has had an impact on the activeness of Monda FC's men's futsal players to take part in every tournament that is held. Even though they actively practice and take part in futsal tournaments, there are still many technical things that Monda FC men's futsal players must pay attention to, namely the basic thing is the physical condition that is most dominant when playing futsal. For this reason, several things that cause the slow increase in futsal achievements include mastery of techniques, tactics, mental and physical conditions. Physical condition must be truly mastered and studied early because it is one of the factors that determines whether a team wins or loses in a match. To improve performance, many factors must be considered, such as infrastructure, quality coaches and regular competitions and must be supported by science and technology. Therefore, factors are very necessary to improve the dominant physical

conditions in the sport of futsal, such as training *durability*, speed and agility. Training is an important factor in achieving an achievement, especially futsal which requires basic techniques and good team cohesion. It is hoped that with sufficient training time, the Monda FC men's futsal players will be able to understand every tactical or technical lesson taught by the coach. To provide a suitable training program, it is necessary to look at the dominant physical condition of the Monda FC men's futsal players so that in the future this physical condition can improve according to the expectations of the players and coaches. Therefore, based on the various descriptions of the problems above, researchers feel that it is necessary to conduct research to see the level of physical condition in playing futsal with the theme "Analysis of the Physical Condition of Monda FC Men's Futsal Players in 2023".

RESEARCH METHOD

This research is descriptive research, namely research that aims solely to determine the condition of an object or event without any intention of drawing generally applicable conclusions (Sutrisno Hadi, 1991: 3). The method used in this research is a survey method with test and measurement techniques. According to Suharsimi Arikunto (2003: 312), the survey method is research that is usually carried out with many subjects, intended to collect opinions or information regarding the status of symptoms at the time the research takes place. Information obtained from survey research can be collected from the entire population or from part of the population. The population in this study were Monda FC futsal athletes. The sampling technique used in this research is Population Study. A population study is to include the entire population as a sample; the number of samples in this study is 15 people. Research instruments are tools or facilities used by researchers to collect data so that it is easier and the results are better, in the sense of being more careful, complete and systematic so that it is easy to process (Suharsimi Arikunto, 2003: 136). Data collection techniques in this research used test and measurement techniques. In this research, the instrument used for data collection consisted of 3 (three) test items, namely:

1. Durability (*Endurance*) *Tes Bleep / Mft*

The goal: to measure lung and heart capacity/volume (vo2max)

Tests used: *tes bleep / mft*

- a) VO2 max

VO2 max is the maximum aerobic capacity that describes the amount of oxygen during exercise or test, with exercise getting harder and harder until fatigue, the measurement is called VO2 max. To measure VO2 Max use *Bleep Test* used to measure the condition of the heart, lungs and blood vessels or in other words *Cardiovascular*. When someone has *Cardiovascular* If you are good and strong then fitness can be said to be strong too.

- b) Tools and equipment used:

- *Cones*

- *Speaker/ loudspeaker*

- c) Implementation Procedures *Tes Bleep / mft*.

- *Hands bleep* This is done by running a distance of 20 meters back and forth, starting with a slow run that gradually gets faster and faster until the athlete is unable to follow the rhythm of the running time, meaning that his maximum ability is at that back and forth level.

- The time of each level is 1 minute.

- At level 1, a distance of 20 meters is covered in 8.6 seconds in 7 round trips.

- At levels 2 and 3, a distance of 20 meters is covered in 7.5 seconds in 8 round trips.

- At levels 4 and 5, a distance of 20 meters is covered in 6.7 seconds in 9 round trips, and so on.
- Every 20 meters distance has been covered, and at the end of each level, a sound signal will be heard once.
- *Start* done standing, and both feet behind the line *start*. With the signal "ready yes", the athlete runs in rhythm towards the boundary line until one foot passes the boundary line.
- If the sound signal has not been heard, the athlete has crossed the boundary line, but to run back he must wait for the sound signal. On the other hand, if there is a sound signal that the athlete has not yet reached the boundary line, the athlete must accelerate until he crosses the boundary line and immediately run again in the opposite direction.
- If twice in a row the athlete is unable to follow the rhythm of the running time, it means that their maximum ability is only at that level and return.
- Once the athlete is unable to follow the rhythm of the running time, the athlete cannot continue to stop, but continue to run slowly for 3-5 minutes to *cool down*.

Table 1 Male Endurance Norms (Source; Sapta Kunta Purnama Book, 2010; 12)

Norma	Age		
	Under 30	30 - 39	40 – 49
Very well	51.6 >	48.1 >	45.1 >
Good	42.6 – 51.5	39.2 – 48.0	35.5 – 45.0
Enough	33.8 – 42.5	30.2 – 39.1	26.5 – 35.4
Not enough	25.0 – 33.7	25.0 – 30.1	25.0 – 26.4
Less than once	< 25	< 25	< 25

Table 2 Bleep Test Sheet

Nama : _____ Nilai : _____
 Kls/No.Absen : _____ Korektor : _____

Format Penilaian Lari Multi Stage

Nomor Level	Stage
1	1 2 3 4 5 6 7
2	1 2 3 4 5 6 7 8
3	1 2 3 4 5 6 7 8
4	1 2 3 4 5 6 7 8 9
5	1 2 3 4 5 6 7 8 9
6	1 2 3 4 5 6 7 8 9 10
7	1 2 3 4 5 6 7 8 9 10
8	1 2 3 4 5 6 7 8 9 10 11
9	1 2 3 4 5 6 7 8 9 10 11
10	1 2 3 4 5 6 7 8 9 10 11
11	1 2 3 4 5 6 7 8 9 10 11 12
12	1 2 3 4 5 6 7 8 9 10 11 12
13	1 2 3 4 5 6 7 8 9 10 11 12 13
14	1 2 3 4 5 6 7 8 9 10 11 12 13
15	1 2 3 4 5 6 7 8 9 10 11 12 13
16	1 2 3 4 5 6 7 8 9 10 11 12 13 14
17	1 2 3 4 5 6 7 8 9 10 11 12 13 14
18	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
19	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
20	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
21	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

2. Speed (*Speed*) 30 meter running test

Testi was given two opportunities. Runners carry out the next test after at least one runner has passed. The best running speed calculated by the timekeeper is done to the tenth of a second (0.1 second), if possible it is recorded to the hundredth of a second. (Nurhasan in Hulfian: 2014:71)

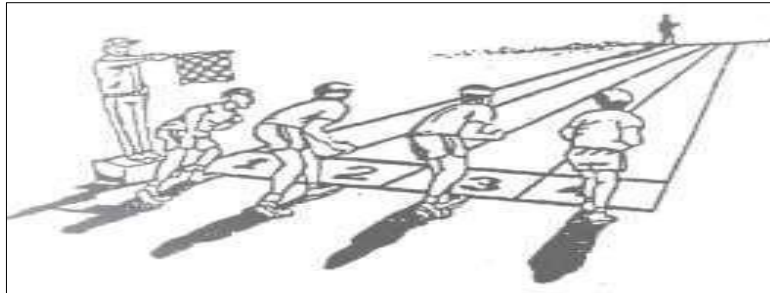


Figure 1 30 meter run Source: *Ministry of National Education (2010: 7)*

Tools and equipment used:

- a) *Cones*
- b) *stopwatch*
- c) *whistle*

Table 2 Speed Norms

Laki-Laki

No.	Norma	Prestasi (Detik)
1.	BAIK SEKALI	3.58 – 3.91
2.	BAIK	3.92 – 4.34
3.	SEDANG	4.35 – 4.72
4.	KURANG	4.73 – 5.11
5.	KURANG SEKALI	5.12 – 5.50

(Sumber: *Perkembangan Olahraga Terkini, Jakarta, 2003*)

3. Strength (*Endurance*) Leg Muscle Strength Test with *leg and back dynamometer*.

Leg muscle strength is measured using a leg and back dynamometer, the measurement steps are as follows:

- a. The test participant stands on the dynamometer support with his knees bent at an angle of 130-140 degrees and his body perpendicular.
- b. The length of the dynamometer chain is adjusted so that the position of the handle stick is across the front of both thighs.
- c. The handle is held with the hand facing backwards (pronated).
- d. Pull the arms as hard as possible by straightening the knee joints slowly.
- e. Read the needle on the dynamometer scale when the maximum value is reached.
- f. Repeat the measurement with a one minute rest period.
- g. The measurement result is the highest score achieved on two occasions.

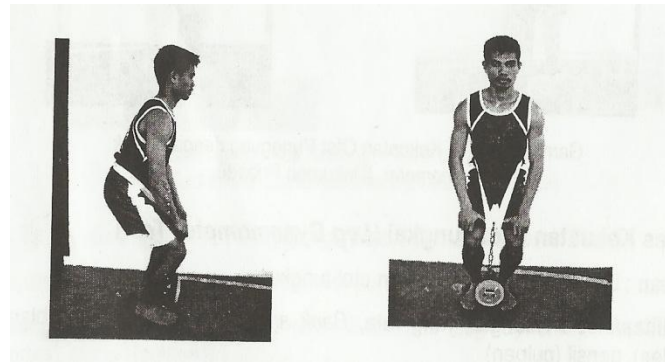


Figure 2 Leg Muscle Strength Test with *leg and back dynamometer*.

Source: <https://berbagaialat.blogspot.com/2019/08/alat-untuk-mengukur-powered-otot.html>

The data collection techniques used in this research are tests and measurements. Data collection techniques are the most important step in research, because the main aim of research is to obtain data (Sugiyono, 2013: 308). When collecting data, start by warming up the testicles to avoid the risk of injury during the test. This research is a descriptive study which aims to provide an overview of the existing reality regarding the physical condition of futsal players. The data analysis technique used is descriptive statistical techniques. These statistics aim to collect data, present data, and determine values.

$$P = \frac{F}{N} \times 100\%$$

Description:

P = percentage sought

F = frequency

N = number of respondents

RESEARCH FINDING AND DISCUSSION

For the needs of data analysis in this research, the survey value data used from the Endurance, Speed and Strength tests, will be processed in a table.

Table 3 Durability Test Results *VO2 Max*

NO	NO	Vo2 Max	CATEGORY
1	Andika	38,7	Enough
2	Gibran	37,5	Enough
3	Farel	44,6	Good
4	Yoga	41,4	Enough
5	Adnan	38,8	Enough
6	Hasbi	43,4	Good
7	Nanang	41,7	Enough
8	Akmal	39,5	Enough
9	It fits	32,4	Enough
10	Ripeness	39,3	Enough
11	Fatah	30,2	Not enough
12	in cyan	30,5	Not enough
13	Alqiah	23,7	Less than once

14	Indra	36,7	Enough
15	He died	27,8	Not enough
	AMOUNT	546,2	

Table 4 Norms VO2 Max (Source; Sapta Kunta Purnama Book, 2010; 12)

NORMA	AMOUNT	PERCENTAGE
VERY WELL	0	0%
GOOD	2	13,33%
ENOUGH	9	60%
NOT ENOUGH	3	20%
LESS THAN ONCE	1	6,67%
AMOUNT	15	100%

Table 5 30 Meter Running Speed Test

Norma	Age (Years)		
	Under 30	30 - 39	40 – 49
Very well	51.6 >	48.1 >	45.1 >
Good	42.6 – 51.5	39.2 – 48.0	35.5 – 45.0
Enough	33.8 – 42.5	30.2 – 39.1	26.5 – 35.4
Not enough	25.0 – 33.7	25.0 – 30.1	25.0 – 26.4
Less than once	< 25	< 25	< 25

Table 5 30 Meter Running Speed Test

NO	NO	SPEED (Seconds)	CATEGORY
1	Andika	3,78	Very well
2	Gibran	3,79	Very well
3	Farel	4,65	Currently
4	Yoga	3,58	Very well
5	Adnan	4,23	Good
6	Hasbi	4,34	Good
7	Nanang	4,78	Currently
8	Akmal	4,32	Good
9	It fits	4,31	Good
10	Ripeness	4,56	Currently
11	Fatah	4,31	Good
12	in cyan	4,23	Good
13	Alqiah	4,42	Currently
14	Indra	4,12	Good
15	He died	4,34	Good
	AMOUNT	57,26	

Table 6 Speed Percentage Results for 30 Meter Running Test

CATEGORY	AMOUNT	PERCENTAGE
VERY WELL	3	20%
GOOD	8	53,33%
CURRENTLY	4	26,67%
NOT ENOUGH	0	0%
LESS THAN ONCE	0	0%
AMOUNT	15	100%

Table 7 Leg Muscle Strength Tests

NO	NO	LEG MUSCLE STRENGTH (KG)	CATEGORY
1	Andika	37,50	Currently
2	Gibran	33,50	Currently
3	Farel	43,00	Currently
4	Yoga	41,00	Currently
5	Adnan	36,00	Currently
6	Hasbi	33,00	Currently
7	Nanang	32,50	Not enough
8	Akmal	34,00	Currently
9	It fits	45,50	Good
10	Ripeness	39,50	Currently
11	Fatah	40,00	Currently
12	in cyan	44,50	Good
13	Alqiah	35,00	Currently
14	Indra	38,50	Currently
15	He died	39,00	Currently
	AMOUNT		

Table 8 Norms of Leg Muscle Strength

No	NORMA	ACHIEVEMENT (Kg)
1	VERY WELL	54.50 – top
2	GOOD	44.50 – 54.00
3	CURRENTLY	33.50 – 44.00
4	NOT ENOUGH	27.50 – 33.00
5	LESS THAN ONCE	sd. – 24.00

Table 9 Percentage Results of Leg Muscle Strength

CATEGORY	AMOUNT	PERCENTAGE
VERY WELL	0	0%

GOOD	2	13,33%
CURRENTLY	12	80%
NOT ENOUGH	1	6,67%
LESS THAN ONCE	0	0%
AMOUNT	15	100%

1. Durability Test Results VO2 Max

NORMA	AMOUNT	PERCENTAGE
VERY WELL	0	0%
GOOD	5	33,33%
ENOUGH	6	40%
NOT ENOUGH	3	20%
LESS THAN ONCE	1	6,67%
AMOUNT	15	100%

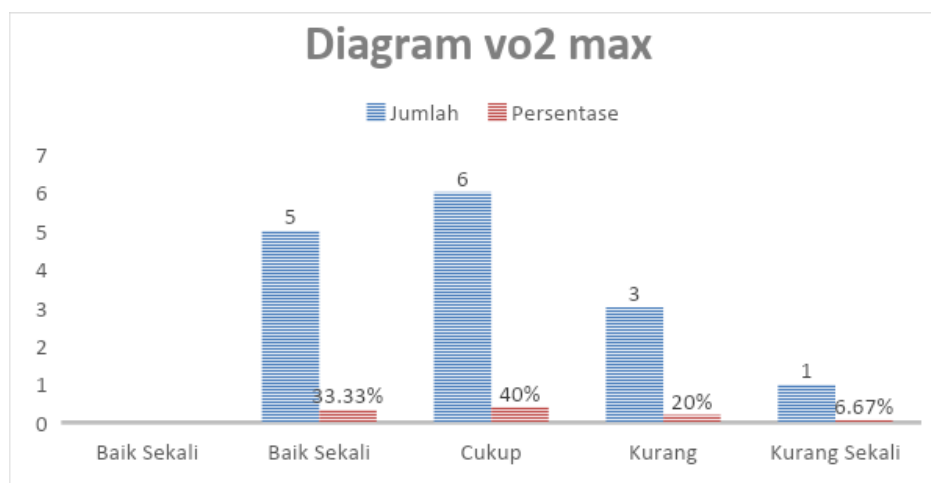


Figure 3 Diagram VO2 Max

From the measurement results *vo2 max* Putra Monda FC Futsal players, the number of players in the normal category is 0 players with a percentage of 0%. The total number of players in the good norm category is 5 people with a percentage of 33.33%. In the norm category, there are enough 6 people with a percentage of 40%. For the norm category less than 3 people with a percentage of 20%. And the last one for the norm category is less than 1 person with a percentage of 6.67%. To determine the total percentage in each norm, the number of players who achieved one of the norms is multiplied by one hundred and then divided by the total number of players totaling 15 people.

2. 30 Meter Running Speed Test Results

CATEGORY	AMOUNT	PERCENTAGE
VERY WELL	3	20%
GOOD	8	53,33%
CURRENTLY	4	26,67%

NOT ENOUGH	0	0%
LESS THAN ONCE	0	0%
AMOUNT	15	100%

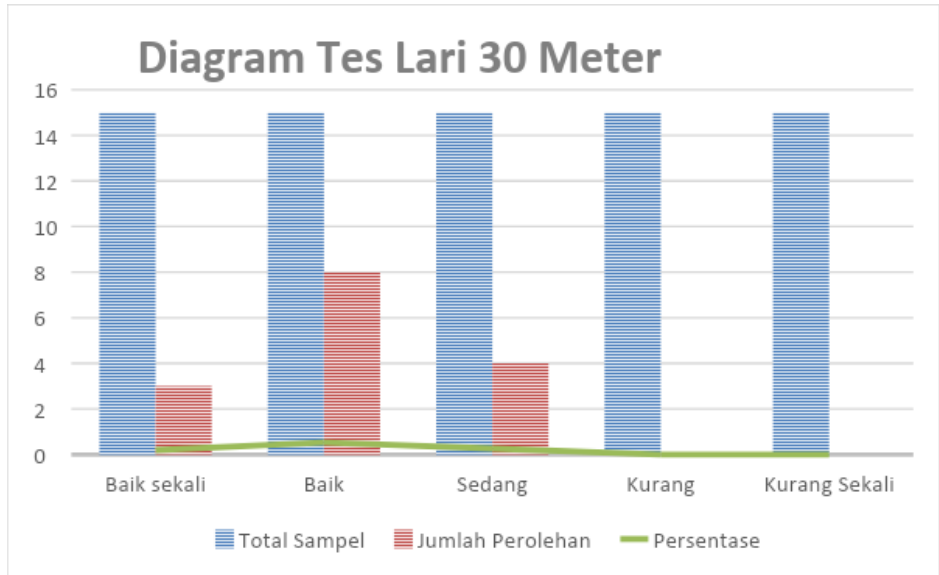


Figure 4 30 Meter Running Test Diagram

From the measurement results of the 30 meter running test Putra Monda FC Futsal players, the number of players who are in the norm category is 3 players with a percentage of 20%. The total number of players in the good norm category is 8 people with a percentage of 53.33%. In the normal category, there are 4 people with a percentage of 26.67%. For the norm category, there are less than 0 people with a percentage of 0%. And the last one for the norm category is less than 0 people with a percentage of 0%. To determine the total percentage in each norm, the number of players who achieved one of the norms is multiplied by one hundred and then divided by the total number of players totaling 15 people.

3. Leg Muscle Strength Test Results

CATEGORY	AMOUNT	PERCENTAGE
VERY WELL	0	0%
GOOD	2	13,33%
CURRENTLY	12	80%
NOT ENOUGH	1	6,67%
LESS THAN ONCE	0	0%
AMOUNT	15	100%

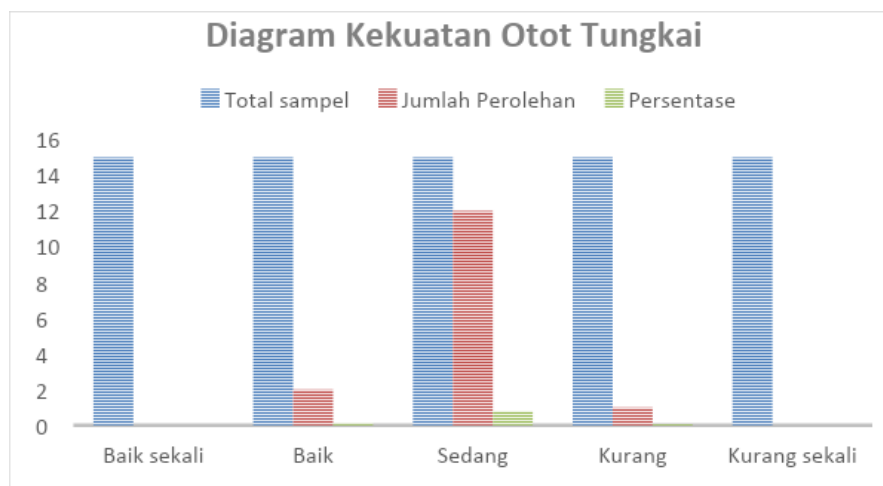


Figure 5 Leg Muscle Strength Diagram

From the results of measuring leg muscle strength of Putra Monda FC Futsal players, the number of players in the normal category is 0 players with a percentage of 0%. The number of players in the good norm category totaled 2 people with a percentage of 13.33%. In the normal category, there are 12 people with a percentage of 80%. For the norm category there is less than 1 person with a percentage of 6.67%. And the last one for the norm category is less than 0 people with a percentage of 0%. To determine the total percentage in each norm, the number of players who achieved one of the norms is multiplied by one hundred and then divided by the total number of players totaling 15 people.

CONCLUSION

Based on the data analysis above, the highest percentage obtained in each norm is as follows. *VO2 Max* the norm category is sufficient at 40%, the speed in the norm category is sufficient 40%, the leg muscle strength in the moderate norm category is 80%.

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