Profile of Physical Condition of U18 Male Athletes in Hanggawana Academy Slawi Junior Basketball in 2023

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Abstract: This research was motivated by matches at residency events and Ramadhan league events in 2023 which experienced a decline in physical condition in the fourth quarter. The objectives achieved by this research is to find out the physical condition profile of the Hanggawana Academy Junior 18 male basketball athletes Slawi in 2023. This research is quantitative descriptive research, using purposive sampling technique in sampling. The subjects of this research were KU 18 male athletes Hanggawana Academy Slawi Junior basketball in 2023, totaling 24 people. Instruments that used are 1 minute push up test, 30 meter run, multistage fitness test, sit and reach, Illinois agility run test. The analysis technique used is using frequency in percentage form. The results of this study show that the profile of the physical condition of male athletes in 18 Junior Basketball Hanggawana Academy Slawi in 2023, strength has an average in the less category, speed has an average in the very less category, endurance has an average in poor category, flexibility has an average in the good category, agility has an average in the very less category.
Keywords: basketball, physical condition, Slawi

INTRODUCTION

According to the Big Indonesian Dictionary (KBBI), sport has two meanings. The first definition of sport is body movement to strengthen and make the body healthy (such as soccer, swimming, or javelin throwing). The second definition of sport, sport is an activity that involves physical and skills both individuals and teams, this activity is carried out for entertainment. Sports and entertainment are two things that are interrelated in human life (Fatinabila, 2022). Sport is a form of human effort to form a fair personality, as well as create quality and accomplished people. Apart from gaining physical and spiritual fitness, sport has the aim of recreation and achieving maximum performance (Rahman & Hermanzoni, 2020).

One of the sports activities that is starting to become popular among Indonesian people is basketball. Basketball is one of the main sports, basketball

which is played by two teams, each team consisting of 12 players, including 5 main players and 7 reserve players. Since each team plays on one field without any barriers, the game is played exclusively with physical contact. Basketball games can be played indoors and indoors. Basketball is a game played with both hands, the way to do this is to open your fingers as wide as possible and bounce them so you can control the direction of the ball well and try to put as many balls into your opponent's basket as possible. The goal of the basketball game is for both teams to get as many points as possible by putting the ball into the opponent's ring and preventing the opponent from getting points. Basketball is a sport that is easy for people to learn because the shape of the ball is large, so players do not have difficulty bouncing or throwing the ball (Adii et al., 2023).

This research was motivated by matches at residency events and Ramadhan league events in 2023 which experienced a decline in physical condition in the fourth quarter. The aim of this research was to determine the profile of the physical condition of male athletes from 18 Hanggawana Academy Slawi Junior Basketball in 2023. This research is a quantitative descriptive research, using purposive sampling techniques in sampling. The subjects of this research were 24 KU 18 Hanggawana Academy Slawi Junior basketball male athletes in 2023. The instruments used were the 1 minute push up test, 30 meter run, multistage fitness test, sit and reach, Illinois agility run test. The analysis technique used is using frequency in percentage form. The results of this study show that the profile of the physical condition of male athletes for 18 years of Junior Hanggawana Academy Slawi basketball in 2023, strength has an average in the poor category, speed has an average in the very poor category, endurance has an average in the poor category, flexibility has an average in the good category, agility has an average in the very poor category.

From the data on the results of the last match, namely between Jr Hanggawana Academy Vs Union and Jr Hanggawana Academy Vs Ganesha, it was a match that had a losing result with a narrow score gap, from the Ramadhan league Junior Hanggawana Academy Slawi played 4 matches. By winning 3 matches and losing 1. This event was attended by 5 teams, namely Junior Hanggawana Academy Slawi and Ganesa from Tegal Regency, 2 teams from Tegal City, namely Putra Bahari and AMR, as well as the Union team from Brebes. From this data, Junior Hanggawana Academy beat the team from Tegal Regency, namely Ganesha, so that Junior Hanggawana is the best Academy in Tegal Regency.

District Match. Tegal vs Brebes at the Residency event is an exciting match even though it is still in the preliminary round. The team from Tegal Regency, which was dominated by Junior Hanggawana Slawi athletes, suffered defeat, in this match Tegal Regency was ahead in the second and third quarters. From the results of interviews with 2 athletes and the coach of KU 18 Junior Hanggawana Academy Slawi, in the fourth quarter the Tegal Regency team experienced a decline in

condition. physical which results in the opposing team conceding points. So the team from Tegal Regency lost in the preliminary round of the residency event. The defeat of the Tegal Regency team in the residency event was a factor in terms of the athlete's physical condition. The coach also informed that Junior Hanggawana Academy Slawi does not yet have a physical trainer and does not have a systematic physical testing program so that data on athletes' physical conditions is not yet available. Physical condition data is very important for a coach to have because basketball is a sport that requires good physical condition.

With the data above, it is clear that Junior Hanggawana Academy does not have a special physical trainer, does not have a programmed physical test, and the loss of the residency event was caused by a decline in the athlete's physical condition in the 4th quarter, therefore researchers are interested in conducting research on the Physical Condition Profile of Male Athletes. U18 Hanggawana Academy Slawi Junior Basketball in 2023, with reasons because

Physical condition is one of the most basic things in a basketball game that every basketball athlete must have to obtain optimal performance, so in this case it will really help researchers to obtain research data. Apart from that, with a test to measure the physical condition of the coach, the coach can obtain precise data, so that it will be easier to diagnose the mistakes and strengths possessed by the Hanggawana Academy Men's Junior Team KU 18 Slawi players. By knowing the correct physical condition standards, it is hoped that the athlete will make good physical progress before taking part in the competition and achieve optimal results.

METHOD

This research uses a quantitative type of research with a descriptive approach. Quantitative research is research that is based on collecting and analyzing data in the form of numbers (numerics) to explain, predict and control phenomena of interest (Mayasari et al., 2022).

This type of quantitative research is a systematic investigation of a phenomenon by collecting data that can be measured using statistical, mathematical or computational techniques. Quantitative research is widely used in both natural and physical sciences. So this quantitative research has an important goal in carrying out measurements. However, measurement is the center of research, because the measurement results will help to see the fundamental relationship between empirical observations and quantitative data results (Robert & Brown, 2004).

Population is all groups of people (institutions, events, or other objects of study) that want to be described and understood. Thus the target group is large to which the researcher hopes to generalize. To generalize from a sample to a population, researchers usually study samples that are intended to represent the

population (Firmansyah & Dede, 2022). In accordance with this opinion, in this study the population used was 32 male athletes at KU 18 Hanggawana Academy Slawi Junior Basketball in 2023.

Sample means part of the population which is the actual source of data in a study. In other words, the sample is a part of the population to represent the entire population (N. F. Amin et al., 2023). In accordance with this opinion, this research has sample criteria, namely Junior Hanggawana Slawi athletes aged 16-18 and male. In this study, the sample used was 24 male athletes from Ku 18 Junior Basketball at Hanggawana Academy Slawi in 2023.

Purposive sampling is a technique for determining samples with certain considerations (N. F. Amin et al., 2023). This research uses purposive sampling because this technique does not take the entire population, only members of the population can be selected as samples, considering that the selected athletes have the requirements, namely that they are junior Hanggawana Slawi athletes in the age category of 16-18 and are male.

RESULTS

The results of the research subject "Physical condition of male athletes at KU 18 Junior Hanggawana Academy Slawi basketball in 2023" are regarding the physical condition of male athletes at KU 18 Junior Basketball Hanggawana Academy Slawi in 2023. Meanwhile, the physical condition profile is a research variable. After data collection is complete. Then proceed with presenting the data and processing the data through descriptive statistical calculations.

Table 1. Physical Condition of U18 Male Athletes for Hanggawana Academy Slawi

No.	Test	N	Min	Max	Mean
1.	1 minute push up	24	10	43	29
2.	30m sprint	24	7.49	4.50	5.64
3.	MFT	24	29.8	47.4	30.6
4.	Sit and Reach	24	16	29	21.79
5.	Illionis Agility Test	24	21.03	17.44	19.22

1. 1 minute push up

Based on data from measuring 1 minute push ups in male athletes at KU 18 Hanggawana Academy Slawi Junior Basketball in 2023, the highest result was 43 times and the lowest was 10 times. The data from the test results can be seen in the following table:

Table 2. Results of 1 Minute Push Up Test

No.	Category	Range	frequency	
			Absolute	%
1.	very good	>70	-	-
2.	good	54-69	-	-

3.	average	38-53	5	20,8
4.	poor	22-37	14	58,4
5.	very poor	<21	5	20,8

Based on the table above, we can see that in the 1 minute push up test for male athletes at U18 basketball at Junior Hanggawana Academy Slawi in 2023 there were 5 athletes (20.8%) in the medium category, 14 athletes (58.3%) in the poor category, and 5 athletes (20.8%) very poor category, so that if the data is calculated as an average value, the resulting average value is 29 times which is in the poor category.

2. 30m sprint

Based on data from measurements of the 30 meter run, male athletes at KU 18 Hanggawana Academy Slawi Junior Basketball in 2023 obtained the highest result of 4.50 seconds and the lowest with 7.49 seconds. The data from the test results can be seen in the following table:

Table 3. Results of 30m sprint

No.	Category	Range	frequency	
			Absolute	**%**
1.	very good	3,58 – 3,91	-	-
2.	good	3,92 – 4,34	-	-
3.	average	4,35 – 4,72	1	4,2
4.	poor	4,73 – 5,11	4	16,7
5.	very poor	5,12 – 5,50	19	79,2

Based on the table above, we can see that in the 30 meter running test for male athletes at KU 18 Junior Hanggawana Academy Slawi basketball in 2023, there was 1 athlete (4.2%) in the medium category, 4 athletes (16.7%) in the poor category, and 19 athletes (79.2%) in the poor category. very less, so if the data is calculated as an average value, the resulting average value is 56.4 seconds which is in the very less category.

3. Multistage Fitness Test (MFT)

Data from Multistage Fitness Test (MFT) measurements on Hanggawana Academy Slawi Junior Basketball U18 male athletes in 2023 obtained the highest result of 47.4 ml/kg/minute and the lowest with 29.8 ml/kg/minute. The data from the test results can be seen in the following table:

Table 4. Results of MFT

No.	Category	Range	frequency	
			Absolute	**%**
1.	very good	≥ L12 B3	-	-

2.	good	L9 B10 – L12 B2	1	4.2
3.	average	L7 B4 – L9 B9	3	12.5
4.	poor	L4 B8 – L7 B3	12	50
5.	very poor	≤ L4 B7	8	33.3

Based on the table above, we can see that the results of the Multistage Fitness Test (MFT) for male athletes at KU 18 Hanggawana Academy Slawi Junior Basketball in 2023 have 1 athlete (4.2%) in the good category, 3 athletes (12.5%) in the medium category, 12 athletes (50 %).

4. Sit and Reach

Based on data from sit and reach measurements, male athletes at KU 18 Hanggawana Academy Slawi Junior Basketball in 2023 received the highest score of 22 cm and the lowest with 47 cm. The data from the test results can be seen in the following table:

Table 5. Results of Sit and Reach

No.	Category	Range	frequency	
			Absolute	%
1.	very good	> 24	5	20.8
2.	good	18 -23	14	50.4
3.	average	12 – 17	5	20.8
4.	poor	6 – 11	-	-
5.	very poor	< 5	-	-

Based on the table above, we can see that in the 2023 Hanggawana Academy Slawi Junior Basketball U18 male athletes' sit and reach test, there were 5 athletes (20.8%) in the very good category, 14 athletes (58.3%) in the good category, and 5 athletes (20.8%) very poor category, so if the data is calculated as an average value, the resulting average value is 21.79 cm which is in the good category.

5. Illionis Agility Test

Based on data from the Illinois Agility Test measurements, Hanggawana Academy Slawi Junior Basketball U18 male athletes in 2023 obtained the highest score of 17.44 seconds and the lowest with 21.03 seconds. The data from the test results can be seen in the following table:

Table 6. Results of Illionis Agility Test

No.	Category	Range	frequency	
			Absolute	%
1.	very good	< 15,2	-	-

2.	good	15,2 – 16,1	-	-
3.	average	16,2 – 18,1	3	12.5
4.	poor	18,2 – 19,3	9	37.5
5.	very poor	> 19,3	12	50

Based on the table above, we can see that in the 2023 Illinois Agility Test for male athletes at KU 18 Hanggawana Academy Slawi Junior Basketball, there were 5 athletes (20.8%) in the medium category, 7 athletes (29.2%) in the poor category, and 12 athletes (50%) in the poor category. very less, so if the data is calculated as an average value, the resulting

DISCUSSION

Based on the results of calculations and data processing, of the 5 physical condition component items that have been carried out by 24 male athletes at KU 18 Hanggawana Academy Slawi Junior Basketball in 2023 for each physical condition component:

1. Strength

Based on data processing of physical condition tests carried out by 24 male athletes at KU 18 Hanggawana Academy Slawi Junior Basketball in 2023, the lowest 1 minute push up test result was 10 times and the highest was 43 times with an average of 29 times in the poor category. According to (Malang et al., 2023) the training method using push ups (incline push ups, decline push ups, triangle push ups, deltoid push ups) aims to strengthen the arm muscles. Junior Hanggawana Academy Slawi's facilities and infrastructure are still lacking, as is the gym equipment which is very limited, so the researchers suggested to the Junior Hanggawana Academy Slawi U18 basketball coach that the strengthening training program, especially upper body, use push up exercises, with the hope of increasing the athlete's strength to the maximum in training.

2. Speed

Based on data processing of physical condition tests carried out by 24 U18 male athletes at Hanggawana Academy Slawi Junior Basketball in 2023, the lowest 30 meter running test result was 7.49 seconds and the highest was 4.50 seconds with an average of 5.64 seconds. in the very poor category. According to (Mukrimaa et al., 2016) the form of speed training is adjusted to the dominant movement of the sport. Speed training such as running 10-20 meter dash sprint, 20 m-40 downhill sprint. Thus, the researchers suggested to the KU 18 Junior Basketball coach Hanggawana Academy Slawi that the speed training program use 10-20 meter dash sprint, 20 meter - 40 meter downhill sprint, with the hope of increasing the athlete's speed to the maximum in training.

3. Endurance

Based on data processing of physical condition tests carried out by 24 U18 male athletes at Junior Hanggawana Academy Slawi basketball in 2023, the lowest mutistage fitness test result was 29.8 ml/kg/minute and the highest was 47.4 ml/kg/minute with an average of 30.6 ml/kg/minute in the less category. One model of endurance training that aims to increase endurance is interval training and fartlek. This type of training model has good results in increasing endurance (Yuliandra et al., 2023). Researchers suggested to the KU 18 Junior Basketball coach Hanggawana Academy Slawi that the endurance training program use interval training and fartlek exercises, with the hope of maximally increasing the athlete's endurance in training.

4. Flexibility

Based on data processing of physical condition tests carried out by 24 U18 male athletes at Hanggawana Academy Slawi Junior Basketball in 2023, the lowest sit and reach result was 16 cm and the highest was 29 cm with an average of 21.79 cm in the good category. A form of exercise to improve the body is providing training in forms of body flexibility movements such as static stretching, kayaking, cobra stance, splits (Rokania, 2022). Thus, the researchers suggested to the KU 18 Junior Basketball coach Hanggawana Academy Slawi that the flexibility training program use static stretching exercises, kayang, cobra stance, splits, in the hope of maximally increasing the athlete's flexibility in training.

5. Agility

Based on data processing of physical condition tests carried out by 24 male U18 basketball athletes at Junior Hanggawana Academy Slawi in 2023, the lowest Illinois agility test result was 21.03 seconds and the highest was 17.44 seconds with an average of 19.22 seconds by very poor category. According to (Training et al., 2022) the type of ladder drill exercise has an influence on agility. Based on this research, the researchers suggested to the KU 18 Junior Basketball coach Hanggawana Academy Slawi that the agility training program use ladder drill exercises in the hope of maximally increasing the athlete's agility in training.

CONCLUSION

Based on the results of the research and discussion that have been presented, it can be concluded that the physical condition of the male athletes at KU 18 Hanggawana Academy Slawi Junior Basketball in 2023 is:

1) The physical condition of the strength component has an average in the poor category.
2) The physical condition of the speed component has an average in the very poor category.
3) The physical condition of the power components is average in the poor category.
4) The physical condition of the components is on average in the good category.

5) The physical condition of the agility component has an average in the very poor category.

Conflict of Interest

The authors declare that they have no conflict of interest.

REFERENCES

Fatinabila, H. (2022). Sosialisasi Olahraga Dan Permainan Tradisonal Untuk Mengatasi

Kecanduan Gawai pada Siswa Selama Masa Pandemi. Jurnal Abdimas Kartika

Wijayakusuma, 3(1), 88–93. https://doi.org/10.26874/jakw.v3i1.186

Rahman, T., & Hermanzoni. (2020). Tinjauan Kondisi Fisik Pemain Sepakbola. Media Neliti, 2(2),

464–476. https://media.neliti.com/media/publications/320783-tinjauan-kondisi-fisikpemain-sepakbola-d6feb3c4.pdf

Adii, Y., Wandik, Y., Fariz, M., & Putra, P. (2023). Permainan bola basket : sebuah tinjuan

konseptual singkat The game of basketball : a brief conceptual review. 22(4), 277–282.

Mayasari, A., Arifudin, O., & Juliawati, E. (2022). Implementasi Model Problem Based Learning

(Pbl) Dalam Meningkatkan Keaktifan Pembelajaran. Jurnal Tahsinia, 3(2), 167–175.

https://doi.org/10.57171/jt.v3i2.335

Firmansyah, D., & Dede. (2022). Teknik Pengambilan Sampel Umum dalam Metodologi

Penelitian: Literature Review. Jurnal Ilmiah Pendidikan Holistik (JIPH), 1(2), 85–114.

https://doi.org/10.55927/jiph.v1i2.937

Amin, N. F., Garancang, S., & Abunawas, K. (2023). Konsep Umum Populasi dan Sampel dalam

Penelitian. Jurnal Pilar, 14(1), 15–31.

Malang, U. N., Sugiarto, D., Malang, U. N., Rarasanti, N. D., & Malang, U. N. (2023). Pengaruh

Latihan Kekuatan Otot Lengan Hasil Tembakan Freethrow Terhadap Siswa Ekstrakurikuler

Basket SMA Laboratorium UM. 1(4).

Mukrimaa, S. S., Nurdyansyah, Fahyuni, E. F., YULIA CITRA, A., Schulz, N. D., د, ساﻥ غ., Taniredja,

T., Faridli, E. M., & Harmianto, S. (2016). PEMBENTUKAN KONDISI FISIK. In Jurnal

Penelitian Pendidikan Guru Sekolah Dasar (Vol. 6, Issue August).

Yuliandra, R., Indonesia, U. T., Nugroho, R. A., Indonesia, U. T., & Indonesia, U. T. (2023). Pelatihan Peningkata Pringsewu. 3(03), 13–17. n Kemampuan Endurance Siswa Ekstrakulikuler Bola Basket SMAN 1

Rokania, S. (2022). PELATIHAN KELENTURAN TUBUH BAGI MAHASISWA PROGRAM STUDI

PENDIDIKAN JASMANI KESEHATAN REKREASI STKIP ROKANIA. 3(April), 174–181.

Latihan, P., Drill, L., Peningkatan, T., Pada, K., Oktanansa, R., & Mardian, R. (2022). Jurnal cerdas

sifa pendidikan. 11, 86–96.