

The Physical Condition Profiles of Male Volley Ball Players in SMA Negeri 3 Kaur, Bengkulu

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Abstract: This study aims to find out the physical condition of male volleyball players at SMA Negeri 3 Kaur. This research was a descriptive research and survey was used as the method. The subjects of this study were all male volleyball players of SMA 3 Kaur, which were 25 people. This study used some tests to determine the explosive power of leg muscles, arm muscle explosive power, agility, eye-hand coordination, flexibility and aerobic endurance related to the physical condition of male volleyball players. Purposive sampling was administered as the sampling technique. The data collection instruments in this study were tests and measurements of physical conditions consisted of Vertical Jump Test, One Hand Medicine Ball Putt, Dodging Run Test, Tennis Ball Throwing, Flexiometer Test, Bleep Test. The data analysis technique used in this study was descriptive analysis technique. Based on the results of the study, it can be seen that the physical condition of men's volleyball of SMA Negeri 3 Kaur was categorized in very good category at 8% (2 athletes), in good category at 32% (8 athletes), in moderate and less categories at 60% (15 athletes).

1 INTRODUCTION

In the Republic of Indonesia's Law Number 3 of 2005 regarding achievement sports in the article 27 paragraph 4, it is stated that "The coaching and developing sports achievement are carried out by empowering associations of sports, fostering national and regional coaching centers, and organizing competitions in stages sustainably". SMA Negeri 3 Kaur is a public high school located in Raya Tanjung Iman Street, Central Kaur, Kaur, Bengkulu. SMA Negeri 3 Kaur is a school that often participates in various championships in the academic and non-academic fields at the provincial and national levels. In the non-academic field, in the field of sports, SMA Negeri 3 Kaur always sent its representatives in participating in each championship, especially in volleyball sports. However, for the provincial level in Bengkulu, SMA Negeri 3 Kaur was still unable to achieve maximum results because the school never won the competition. It was based on the researchers' observations, accompanied by the volleyball coach of SMA Negeri 3 Kaur who already had a license.

From these observations, it was found out that there were obstacles that must be addressed in dealing with the lack of achievement of SMA Negeri 3 Kaur. The physical condition of the players in that school

was still not optimal. This can be seen while they took part in a training match between the core players and the substitute ones. All the players in the first half could work well based on their respective positions and could adjust the tempo of the game. In the first half, they played well. However, in the second half, the players started to lose concentration, and mistakes often occurred. The ball often came out in serving and placing the balls in empty area was not done well. The players were no longer disciplined in carrying out their duties and did not have good cooperation, thus they were often late in anticipating the attacks. The solution regarding the above problems need to be found, since it will impact on the maximum result and the expected achievements will be difficult to get. Therefore, the authors were interested in conducting research on: "Physical Condition Profiles of Male Volley Ball Players in SMA Negeri 3 Kaur, Bengkulu". Sport means organizing or manipulating the body in order to make the body fit. Sports refer to all types of physical activities, which can be done on land, water, or in the air. The meaning of sports according to the Indonesian encyclopedia is gestures carried out by one or more people in a team or a group. It was explained that the concept of sports is to move, like playing activities, games, and sports (Edward in Sabaruddin, 2016). Whereas according to

Rosdiani (2013), sports refer to any activities that involve the nature or characteristics of the game and elements of struggle to control oneself or others or a competition with natural factors.

Volleyball, along with football, is a very popular sport in the world and it is very easy for people to understand the rules. The attraction of volleyball game lies in the naturalness of the game. Volleyball is a game that challenges both physically and mentally. We must make a skilled movement under the conditions of the game in the limited time (Rohim, 2008). Mukholid (2004) states that volleyball is a game that uses a ball to be volleyed (reflected) in the air back and forth on the net, with the purpose to drop the ball in the opponent's field, to gain victory.

Based on the opinion above, it can be concluded that essentially, volleyball is a ball game which is done by implementing various basic game techniques in which the idea is to take the ball into the opponent's area or a condition when the ball has touched the floor of the opponent's area bypassing the net.

Erianti (2004) argues that the basic technique of playing volleyball consists of several parts as follows. (a) Service. It is done in the beginning of the game or can be said as a blow to start a match (game). (b) Passing. It is the first step to form an attack. Passing can be done by using two hands or one hand. (c) Smash. It is a hard hit that can kill an opponent's attack and it is a very beneficial blow for players who have good physical conditions, especially the explosive muscle power of a good athlete's limbs. (d) Block. It is the main fortress to fend off enemy attacks.

Volleyball is classified as a sport that requires excellent physical condition. The special physical conditions that are dominant in volleyball sports include: (1) explosive strength of the arm muscles. Explosive strength of the arm muscles is one of the physical components that a volleyball athlete must have, either in doing service or smash. Volleyball is a sport that requires explosive power, especially the explosive power of the limb muscles and arm muscles, including the muscles of the fingers in performing the techniques in volleyball game. In addition to the explosive power of the leg muscles and the arm muscles which are needed to do the smash, the other techniques are also needed, like lower service, lower passing and top passing. In doing those passing above, the explosive power of the muscles of the arms and muscles of the fingers are needed to be able to push the ball upwards, as well as to punch the ball into the opponent's area which is 10 to 18 meters away. (2) Explosive strength of leg muscles is an important physical condition in playing volleyball. It

is one of the explosive power elements, according to Arsil (2015: 71). He said that: "A volleyball athlete must have: strength of speed, endurance, explosive power, agility and coordination". All of the components above are needed to support volleyball game activities such as: jumping, blocking, and smash. (3) Agility. It is one's ability to be able to change direction quickly and precisely when moving without losing balance (Agus, 2012). If the athletes have good agility, then the results will be good too, especially when defending the opponent's attacks and looking for opportunities to attack or smash into the opponent's area without losing balance in the game. (4) Eye-hand coordination. Coordination is an element of physical condition that is very important in life, especially in sports activities. Almost all sports activities require motion. Motion in sports rarely works alone, but rather in a series of several elements of motion, such as jumping, running, hitting, throwing, and kicking. They involve motion combination of the foot, hand, and other body parts. In the volleyball game, from several motion elements, such as jumping, hitting and coordinating the limbs, eye-hand coordination is a very vital element to make a smash. In volleyball game, special flexibility is also important. According to Syafruddin (2011), special flexibility is "the dominant ability of flexibility needed in a particular sport". What is meant here is the determination of the waist muscles. In doing a smash, the role of waist muscle is indeed obvious when the smasher carries out a blow. (6) Aerobic endurance. In a competition, an athlete is required to be able to move longer during the match without experiencing fatigue in carrying out the techniques and tactics in volleyball. The attack and defense must be carried out by athletes and they must always move dynamically and aggressively to find opportunity to score a point in every moment. If a volleyball athlete does not have good VO_2max , he will have difficulty in training or a match, even though the athlete has good technical skills.

2 METHOD

This type of research was descriptive which aims to describe something as it is. The population of this study was the volleyball players of SMAN 3 Kaur Bengkulu who actively participated in volleyball training. They are 35 people consisting of 25 male players and 10 female players. The sampling technique used in this study was purposive sampling, in which the determination of the sample is purposive based on the objectives of certain considerations, thus

the samples were determined by the intended purpose (Yusuf, 2015). The samples of this study were only 25 players deriving from male athletes and female athletes, who had different physical abilities. The data collection technique in this study was a test to measure the explosive power of the arm muscles, explosive limb muscle power, agility, hand eye coordination, flexibility, and aerobic endurance. The data analysis technique in this study was descriptive analysis and scoring system using normalized benchmarking.

3 RESEARCH RESULTS AND DISCUSSION

3.1 Vertical Jump Test

The frequency distribution of vertical jump test of male volleyball players of SMAN 3 Kaur is displayed in Table 1.

Table 1: Result of vertical jump test.

Category	Evaluation Norms	Absolute Frequency	Relative Frequency (%)
Very Good	> 102,67	3	12 %
Good	89,63 – 102,66	3	12 %
Moderate	76,59 – 89,62	7	28 %
Less	63,55 – 76,58	12	48 %
Very Less	< 63,54	0	0 %
Total		25	100%

The data can also be seen in the form of diagram in Figure 1.

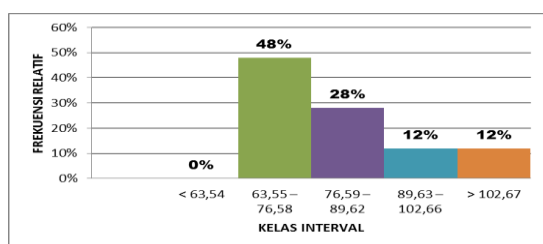


Figure 1: Diagram of vertical jump test result.

Table 1 and Figure 1 above inform the ability of male players' vertical jump volleyball of SMA Negeri 3 Kaur, showing 0% (0 athletes) in "very less" category, 48% (12 athletes) in "less" category, 28%

(7 athletes) in "moderate" category, 12% (3 athletes) in "good" category, and 12% (3 athletes) in "very good" category.

3.2 One Hand Medicine Ball Putt

The frequency distribution of one hand medicine ball putt of male volleyball players of SMAN 3 Kaur is displayed in Table 2.

Table 2: Results of one hand medicine ball putt test.

Category	Evaluation Norms	Absolute Frequency	Relative Frequency (%)
Very Good	> 7,7	2	8
Good	6,9 – 7,6	8	32
Moderate	6,1 – 6,8	7	28
Less	5,2 – 6,0	7	28
Very Less	< 5,1	1	4
Total		25	100

When it is displayed in the form of a diagram, it can be seen in Figure 2 below.

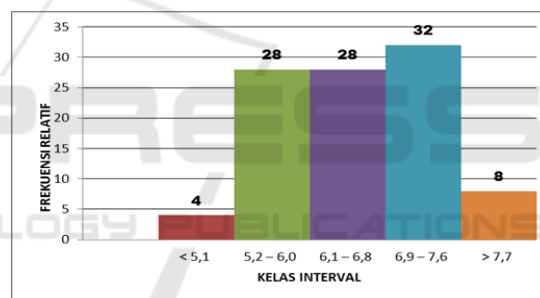


Figure 2: Diagram of the one hand medicine ball putt test result.

Based on Table 2 and Figure 2, it shows that the ability of One Hand Medicine Ball Putt of volleyball male players at SMA Negeri 3 Kaur is in "very good" category at 8% (2 athletes), "good" category at 32% (8 athletes), "moderate" category at 28% (7 athletes), "less" category at 28% (7 athletes), "very less" category at 4% (1 athlete).

3.3 Dodging Run Test

The frequency distribution of dodging run test of male volleyball players of SMAN 3 Kaur is displayed in Table 3.

Table 3: Result in dodging run test.

Category	Evaluation Norms	Absolute Frequency	Relative Frequency (%)
Very Good	<12,45"	2	8
Good	12,46 – 13,34"	5	20
Moderate	13,35 – 14,23"	9	36
Less	14,24 – 15,12"	7	28
Very Less	>15,13"	2	8
Total		25	100

When it is displayed in the form of a diagram, it can be seen in the picture below.

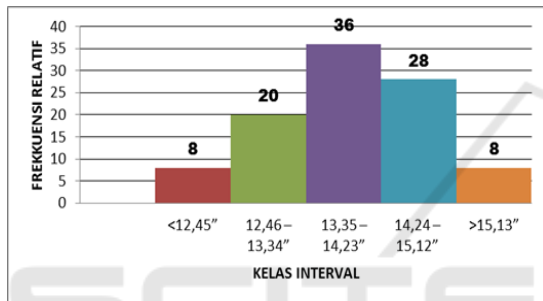


Figure 3: Diagram of dodging run test result.

Based on Table 3 and Figure 3 above, it shows that the ability of Dodging Run Test for volleyball male players in SMA Negeri 3 Kaur is in "very good" category at 8% (2 athletes), "good" category at 20% (5 athletes), "moderate" category at 36% (9 athletes), "less" category at 28% (7 athletes), and "very less" category at 8% (2 athletes).

3.4 Tennis Ball Throwing

The frequency distribution of tennis ball throwing test of male volleyball players of SMAN 3 Kaur is displayed in Table 4.

Table 4: Results of tennis ball throwing test.

Category	Evaluation Norms	Absolute Frequency	Relative Frequency (%)
Very Good	> 17	1	4
Good	13 – 16	11	44
Moderate	10 – 12	5	20
Less	7 – 9	7	28
Very Less	< 6	1	4
Total		25	100

When it is displayed in the form of a diagram, it can be seen in Figure 4.

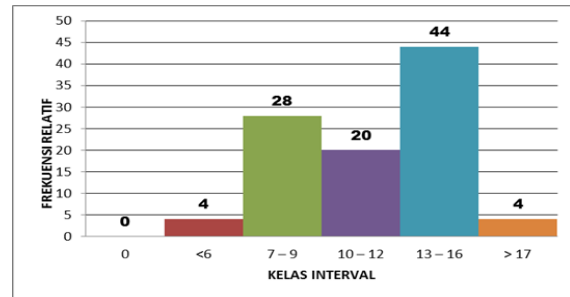


Figure 4: Diagram of tennis ball throwing test result.

Based on Table 4 and Figure 4 above, it shows that the ability of tennis ball throwing on the male volleyball players of SMA Negeri 3 Kaur is in the category of "very good" at 4% (1 athlete), "good" category at 44% (11 athletes), "moderate" category at 20% (5 athletes), "less" category at 28% (7 athletes), "very less" at 4% (1 athlete).

3.5 Flexiometer Test

The frequency distribution of flexiometer test of the male volleyball players of SMAN 3 Kaur is displayed in Table 5.

Table 5: Results on flexiometer test.

Category	Evaluation Norms	Absolute Frequency	Relative Frequency (%)
Very Good	> 22.1	2	8
Good	18 – 22.0	5	20
Moderate	14 – 17	11	44
Less	10 – 13	7	28
Very Less	< 9	0	0
Total		25	100

When it is displayed in the form of a diagram, it can be seen in Figure 5.

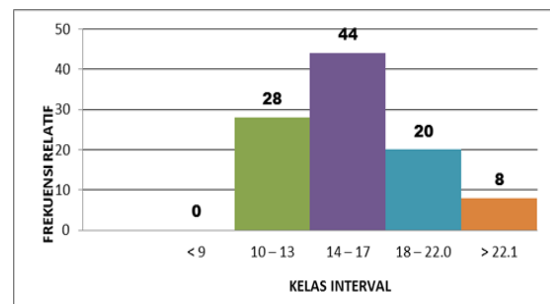


Figure 5: Diagram of flexiometer test result.

Based on Table 5 and Figure 5 above, it shows that the flexiometer test of the male volleyball players at SMA Negeri 3 Kaur is in "very good" category at 8% (2 athletes), "good" category at 20% (5 athletes), "moderate" category at 44% (11 athletes), "less" category at 28% (7 athletes), "very less" category at 0% (0 athlete).

3.6 Bleep Test

The frequency distribution of bleep test of the male volleyball players of SMAN 3 Kaur is displayed in Table 6.

Table 6: Results of bleep test.

Category	Evaluation Norms	Absolute Frequency	Relative Frequency (%)
Very Good	> 37,2	2	8
Good	34,1 – 37,1	5	20
Moderate	30,9 – 34,0	5	20
Less	27,8 – 30,8	13	52
Very Less	< 27,7	0	0
Total		25	100

When it is displayed in the form of a diagram, it can be seen in the picture below:

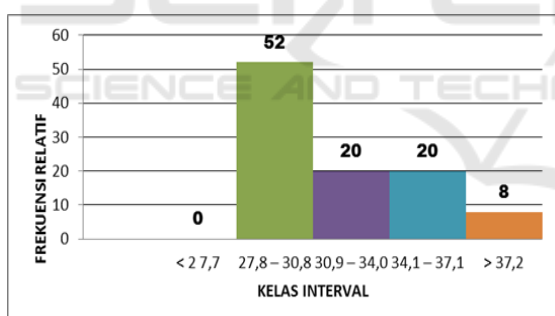


Figure 6: Diagram of bleep test results.

Based on Table 6 and Figure 6, it shows that the bleep test for the male volleyball players in SMA Negeri 3 Kaur is in "very good" category at 8% (2 athletes), "good" category at 20% (5 athletes), "moderate" category of 20% (5 athletes), "less" category of 52% (13 athletes), and "very less" category at 0% (0 athlete).

4 CONCLUSIONS

Based on the results of data analysis, description, test result, and discussion, it can be concluded that the

profile of the physical condition of volleyball male players of SMA Negeri 3 Kaur in Bengkulu Province was in "very good" category at 8% (2 athletes), in "good" category at 32% (8 athletes), and in "moderate, less and very less" categories at 60% (15 athletes).

5 RECOMMENDATIONS

Based on the conclusions above, the author gives advice to trainers, athletes, and further researchers with the following suggestions:

1. To improve the players' performance, it is recommended that the coach does not ignore the physical condition of the players. The physical condition is the basic of all sports, especially volleyball, which can be done by doing structured and programmed exercises.
2. To improve the performance of the volleyball men's players in SMA Negeri 3 Kaur, it is recommended to increase the explosive power of leg muscles, such as plyometric exercises, knee-tuck, box to box exercises and other forms of explosive muscle leg exercises.
3. To improve the performance of volleyball men's players in SMA 3 Kaur, it is recommended to increase the explosive power of the arm muscles, such as push-up exercises by clapping both hands when the body is lifted.
4. To increase the performance of volleyball men's players at SMA Negeri 3 Kaur, it is recommended to increase the players' agility, by doing zig-zag training, practice running back and forth, and so on.
5. To improve the performance of volleyball men's players in SMA Negeri 3 Kaur, it is recommended to improve eye-hand coordination, by doing wall-catching ball training and others.
6. To increase the performance of volleyball men's players at SMA Negeri 3 Kaur, it is recommended to improve flexibility, by doing exercise, flexiometer, and others.
7. To improve the performance of volleyball men's players at SMA Negeri 3 Kaur, it is recommended to increase aerobic endurance, by doing 2.4 km running exercise, bleep test and others.

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