

PHYSICAL CONDITIONS OF SOCCER PLAYERS PARTICIPATING IN TRAINING DURING THE NEW NORMAL ERA

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Abstract

Physical condition is one of the most important things for soccer players. The physical condition should be maintained by soccer players as it is part of the strategy to improve techniques, tactics, or strategies in playing soccer. This study aims to investigate the physical condition of students joining the soccer extracurricular program at 7 State Senior High Schools Pontianak, 8 State Senior High Schools Pontianak, and 9 State Senior High Schools Pontianak. In collecting the data, the researchers focused on phenomena, conditions, or certain variables, but hypothesis testing was not done in this research. The number of samples in this research is 60. This research made use of the quantitative descriptive analysis method, and a survey as done to collect the data. In order to show the cumulative results of the data analysis, percentages were used to present the soccer player conditions in terms of flexibility, agility, speed, endurance, and strength. The results of this research show that 42% of the soccer players belong to the Excellent and Very Good categories. Meanwhile, 58% of the players belong to the Good, Fair, and Poor categories. Based on the result, it is indicated that the players' physical conditions need to be improved during this pandemic. It is expected that the results of this research may become a positive input for soccer players and supporters in Pontianak

Keyword: physical condition, soccer player participating, new normal era

INTRODUCTION

Many students play soccer because it is one of the popular extracurricular programs in 7 State Senior High Schools Pontianak, 8 State Senior High Schools Pontianak, and 9 State Senior High Schools Pontianak. Nasution (2018) argues that soccer is well accepted by all age levels (from children to adults). Moreover, Ahmad & Yahmun (2017) point out that soccer is a sport with the biggest fans in the world. Thus, when there is a soccer event, all people, from the lower to the higher classes will be involved either directly or indirectly. Soccer can influence and help improve sciences, physical competence, and morale gradually to achieve the highest goals (Cendra, 2016). Soccer is also able to show good sportsmanship when a match is broadcast on television or watched live (Tri Kusuma, 2017). The soccer game will also be better if it is supported by good soccer techniques and skills, strong physical condition, strategy, and mental support shown by the players (Sumarno & Irianto, 2019).

Every level of society in Indonesia loves football and demands the national team to achieve more in both local and international events. Although participating in the world cup is impossible for the national team, the team should at least perform well in Southeast Asian and Asian events. Indonesian people know that having good achievement in the Southeast Asian and Asian levels is impossible if players' needs and components playing important roles in soccer games are ignored. Ilissaputra & Suharyana (2016) argue that problems of coaching young soccer players are related to the lack of good basic athletic skills possessed by

prospective soccer players. It is the stakeholder's and current soccer management team's task to encourage the Indonesian soccer team to be able to achieve more in the future.

Physical condition is one of the most important things for soccer players. The physical condition should be maintained by soccer players as it is part of the strategy to improve techniques, tactics, or strategies in playing soccer. Sukadiyanto (2011) points out that physical, technical, tactical, psychological, and sociological factors support players to achieve more. Therefore, treatment given to the players should be able to obtain an optimum result. Regarding the aspects of the human body, the players' endurance, strength, flexibility, speed, coordination, accuracy, reaction, balance, and agility are somehow interrelated. According to the National Education Office (2000), some other factors influencing someone's physical condition are gender, age, heredity, aerobic and anaerobic activity, and those related to the pressure on the lungs. Furthermore, apart from several factors that can affect the physical condition, there are other factors, for example, external factors.

Planning physical training should be done well, correctly, and systematically in order to improve the ability of the body functional system. The components influencing soccer players' physical conditions according to (Fenanlampir & Faruq, 2014) are the strength of muscles (in the arms, shoulders, back of the body, and legs), muscle endurance (in the abdomen, hands, and legs), speed, agility, flexibility, explosive power, and aerobic endurance.

According to (Susanto & Lismadiana, 2016), it is recommended to create a fun and pleasant atmosphere without any competition to train young players. In carrying out the technical exercise, Bempa (2015) suggests not imitating the professional athlete exercise plan because physiologically and biomechanically they are different. In a more detailed explanation, Utama, Insanisty, & Syafrial (2017) point out that besides basic skills, soccer players should get physical exercise. The exercise should be good and conducive in order to make the players excel (Ahmad, Ali, Kumbul, & Mimi, 2019). The coach plays a very important role in providing a good and correct exercise program to maintain the players' physical condition.

The exercise program and pattern related to the physical condition are expected to develop and give positive impacts on the players and team. Harsono (2015) states that exercise is a systematic process of practicing or working out, which is done repeatedly with the increasing load of training. However, during the COVID-19 pandemic, soccer players in Pontianak should take two months off. Thus, they unwillingly stopped exercising and stayed at home (Kardiyanto, D.W, 2020). During this pandemic, training should be conducted in accordance with the health protocols recommended by the government even though people in the green areas are allowed to do normal exercise (Elementary School Directorate, 2020). Thus, the players should have the initiative to do the exercise independently in order to maintain their physical condition because it is a must for those who want to achieve the best. Physical condition should be maintained to avoid sudden fatigue during soccer games. In line with this statement, Soegiyanto (2011) argues that physical condition plays an important role in improving the function of organisms in the body.

Therefore, the soccer players' physical conditions should become a concern in exercise. The coach needs to be aware of the players' needs and what to be improved and revised to achieve optimum results. Moreover, players should be able to control themselves by correcting and increasing the exercise they have done. The good physical condition will have a big impact on the players and the team during the game. A series of training and determination are needed to maintain physical condition. (Dahlan, Hidayat, & Syahrudin, 2020), mastering soccer skills requires a process called gradual training that will lead to the best performance during practice and matches. In addition, Cahyono & Syafii (2019) argue that to get optimum results from age group training, it is necessary to develop correct,

accurate, and systematic physical, tactical, mental, and basic technical skill training by referring to the applicable training principles.

During this pandemic, the training program provided by the coach will definitely not run optimally. Thus, it is very important to maintain players' physical conditions to at least maintain the player quality. Having a good physical condition through organized training may help players improve their skills. Besides, with good condition, a player will quickly recover from his fatigue.

This research was urgently conducted because during this pandemic, there is no soccer game held and training is rarely done, so there is a concern that the players' physical conditions will deteriorate. Then, this research aims to see the most dominant factors influencing soccer players' physical conditions. At last, from the concrete data collected, this research will help the coach to plan training programs in accordance with the players' needs.

METHOD

This research employed the quantitative descriptive method. According to Linarwati, Fathoni, & Mina, (2016), a descriptive study aims to explain certain phenomena well. Andih (2018) explains briefly that the quantitative method is a data (number) analysis method. Meanwhile, Jayusman & Shavab (2020) point out that the quantitative approach is used because numbers are collected to be later interpreted. It can be concluded that descriptive quantitative is a method that is used to describe numbers collected in research. This present study tries to give an overview of the physical conditions of players' joining the soccer extracurricular program at SMA Negeri 7, 8, and 9 Pontianak. In collecting the data, the researchers focused on phenomena, conditions, or certain variables, but hypothesis testing was not done in this research. After obtaining the category of each physical condition aspect, conclusions were drawn. The instruments were used to find out an overview of the physical condition.

Tabel 1. The aspects measured

No	Aspect	Instrument
1	Flexibility	Flexometer
2	Speed	30-meter sprint test
3	Agility	Beamside step
4	Aerobic endurance	MFT (Vo2max)
5	Leg muscle strength	Leg dynamometer
6	Abdominal muscle strength	Sit-up

Using the instruments, data were collected for three days. The observation, interview, discussion, and test were conducted. It was scheduled that the data should be collected on Monday, Wednesday, and Saturday in accordance with the training schedule planned by the coach. The number of populations in this research was 60. The data collection was done in accordance with the planned scheme. First, the players wrote down their heights and weights, and then the researchers told them about the research, its benefits, and how the tests would be done. The tests were matched with the procedures stated in some references. Second, the players went to the test place or posts prepared. Third, the players were tested in the places and posts accordingly. At last, after the players were done tested, they were invited to be briefed.

The data were analyzed using the quantitative descriptive technique and shown in percentages. Descriptive statistics is a method that is carried out in statistical form with the stages of analyzing data in which the results are described to obtain a general conclusion to become a reference for further studies (Sugiyono, 2013). After the player categories were found out, a formula was used to calculate the data. The formula by Sudjiono (2012) is presented below.

$$Percentage(\%) = \frac{F}{N} \times 100\%$$

Description:

P = Percentage

F = Frequency searched

N= The number of players or frequenc

RESULTS AND DISCUSSION

This study tested and measured six components of physical conditions that support soccer players' performance. Data analysis was used to test the data to be later presented in percentages. The percentages were then converted into some categories, namely Excellent, Very Good, Good, Fair, and Poor. Scores were collected from all the aspects, namely flexibility, speed, agility, aerobic endurance, leg muscle strength, abdominal muscle strength. Below is a table that shows the result of flexibility test scores.

Table 2. Soccer Player Flexibility Scores

Category	Range of Score	Total	Percentage
Excellent	>24	12	20 %
Very Good	18-23	18	30 %
Good	12-17	10	16.7 %
Fair	6-11	10	16.7 %
Poor	1-5	10	16.6 %
Total		60	100%

Table 2 above shows that the soccer players' physical conditions are put into five categories based on their flexibility. There are 12 soccer players in the Excellent category, so the percentage is 20%. In the Very Good category, there are 18 players, so the percentage is 30%. Then, in the Good category, there are 10 players, so the percentage is 16.7%. There are also 10 players in the Fair category, so the percentage is 16.7%. At last, in the Poor category, there are also 10 players, so the percentage is 16.6%. Thus, the total number of players joining the soccer extracurricular program in three schools is 60 with a total percentage of 100%.

Table 3. Soccer Player Speed Scores

Category	Range of Score	Total	Percentage
Excellent	3.58 – 3.91	13	21.7 %
Very Good	3.92 – 4.34	15	25 %
Good	4.35 – 4.72	11	18.3 %
Fair	4.73 – 5.11	11	18.3 %
Poor	5.12 – 5.50	10	16.7 %
Total		60	100 %

Table 3 above shows that the soccer players' physical conditions are put into five categories based on their speed. There are 13 soccer players in the Excellent category, so the percentage of 21.7%. In the Very Good category, there are 15 players, so the percentage is 25%. Then, in the Good category, there are 11 players, so the percentage is 18.3%. There are also 11players in the Fair category, so the percentage is 18.3%. In the Poor category, there are 10 players, and the percentage is 16.7%.

Table 4 above shows that the soccer players' physical conditions are put into five categories based on their agility. There are 10 soccer players in the Excellent category, so the percentage is 16.7%. In the Very Good category, there are 15 players, so the percentage is 25%. Then, in the Good category, there are also 15 players, so the percentage is 25%. There

are 12 players in the Fair category, so the percentage is 20%. In the Poor category, there are 8 players, and the percentage is 13.3%.

Table 4. Soccer Player Agility Scores

Category	Range of Score	Total	Percentage
Excellent	>12.10	10	16.7 %
Very Good	12.11 – 14.09	15	25 %
Good	14.10 – 15.74	15	25 %
Fair	15.75 – 17.39	12	20 %
Poor	>17.38	8	13.3 %
Total		60	100%

Table 5. Soccer Player Aerobic Endurance Score

Category	Range of Score	Total	Percentage
Excellent	>51.6	15	25 %
Very Good	42.6 – 51.5	15	25 %
Good	33.8 – 42.5	15	25 %
Fair	25.0 – 33.7	10	16.7 %
Poor	<24.9	5	8.3 %
Total		60	100%

Table 5 above shows that the soccer players' physical conditions are put into five categories based on their aerobic endurance. The Excellent, Very Good, and Good categories have a similar number of players (15), so the percentages of each category are 25%. There are 10 players in the Fair category, so the percentage is 16.7%. In the Poor category, there are 5 players, and the percentage is 8.3%.

Table 6. Soccer Player Leg Muscle Strength Score

Category	Range of Score	Total	Percentage
Excellent	>353	12	20 %
Very Good	284 – 352	8	13.3 %
Good	215 – 283	15	25 %
Fair	146 – 214	10	16.7 %
Poor	77 – 145	15	25 %
Total		60	100%

Table 6 above shows that the soccer players' physical conditions are put into five categories based on their leg muscle strength. There are 12 soccer players in the Excellent category, so the percentage is 20%. In the Very Good category, there are 8 players, so the percentage is 13.3%. Then, in the Good category, there are 15 players, so the percentage is 25%. There are 10 players in the Fair category, so the percentage is 16.7%. In the Poor category, there are 15 players, so the percentage is 25%.

Table 7. Soccer Player Abdominal Muscle Strength Score

Category	Range of Score	Total	Percentage
Excellent	>90	8	13.3 %
Very Good	70 – 89	12	20 %
Good	50 – 69	10	16.7 %
Fair	30 – 49	15	25 %
Poor	20 – 29	15	25 %
Total		60	100%

Table 7 above shows that the soccer players' physical conditions are put into five categories based on their abdominal muscle strength. There are 8 soccer players in the

Excellent category, so the percentage is 13.3%. In the Very Good category, there are 12 players, so the percentage is 20%. Then, in the Good category, there are 10 players, so the percentage is 16.7%. There are 15 players in the Fair category, so the percentage is 16.7%. In the Poor category, there are also 15 players, so the percentage is 25%.

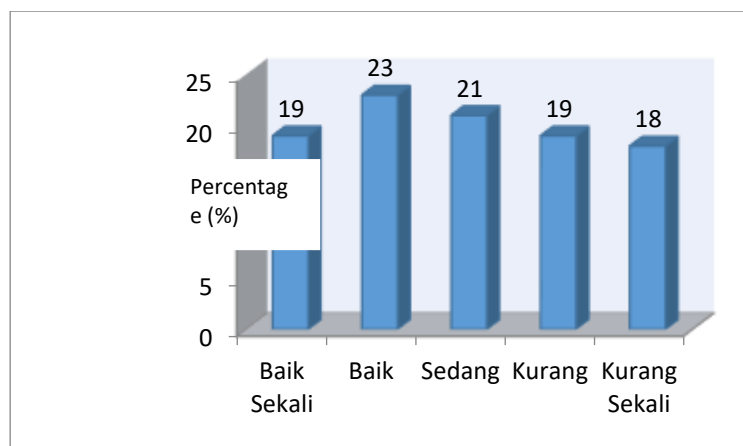


Figure 1. The overall percentages of players' physical condition

The chart in Figure 1 shows that in general, the physical condition of the players is very good. The average percentage obtained is 23%. Moreover, when put in order based on the highest to lowest percentages, the categories of soccer player physical are Very Good (23%), Good (21%), Excellent (19%), Fair (19%), and Poor (18%).

Based on the analysis of the above percentages, the accumulation of percentages of Excellent and Very Good categories is 42%. The total accumulated percentage of these categories does not even exceed half of the players who took the test. Soccer is a game that relies on the good physique of each player, so to be able to play optimally, all players including the goalkeeper need to be in good physical condition. Goalkeepers need to have the good physical condition because today's modern soccer requires them to attack the opponents while controlling the ball. In the study conducted by Priambodo & Faruk (2018), it was shown that in this modern era, goalkeepers have more role in the soccer game as they need to use their legs 19.2% more than their hands. This means that almost all players should be involved in attacking the opposing team.

According to Weda (2021), the physical condition used and developed during soccer games varies, but the mostly used one is the general physical condition. In general, the physical condition includes strength, flexibility, speed, endurance, and anthropometry. Then, Prasetya & Hariadi (2018) point out that in order to get the highest achievement in sports, players must be supported with good physical conditions so that they can easily improve their abilities in general. Therefore, it is clear that improving physical condition, in general, will help players improve the quality of their specific abilities. In this study, it is found that the number of players having Good, Fair, and Poor physical condition is 58%. Although the range is quite wide, it has become an important point for researchers and coach to consider.

Because most of the players are in a good condition, there are several possibilities that they will feel fatigue and then be underperformed even before the game is finished. In line with this idea, Hidayat, Imanudin, & Ugelta, (2019) point out that soccer players must have good physical condition to support their bodies during matches, so they do not feel excessive fatigue. According to Musrifin & Bausad (2020), physical condition improvement and methods used in training should be adjusted with the age group. In other words, in order to obtain maximum results, a coach needs to know the players' needs and how to improve their physical condition because the training methods needed by each age group are different.

One of the objectives of the present study is to show the overview of the physical condition of soccer players in SMA Negeri 7, 8, and 9 Pontianak during the COVID-19 pandemic. In this study, the process was done in three days. The researchers were actively involved in the soccer extracurricular program conducted in the schools and worked with the players and the coach. The six aspects measured to show the players' physical condition serve as the basis to plan an exercise program that focuses on developing general and specific physical conditions. The players will not play well if their physical conditions are under the standards or capacity. Therefore, maintaining prime physical condition will prevent players from suffering from fatigue.

Based on the results of this study, the students joining the extracurricular program still need to improve their general physical condition to be able to improve their specific condition more easily later. Moreover, it is found that the physical conditions of students vary in terms of speed, flexibility, agility, endurance, and strength. This indicates that all players have their own strengths and weaknesses. The coach must use the result of this present study to plan a training program in accordance with the need of each player so that the player has equal abilities in each position during the match.

As soccer has many components to be taken into account, the coach also needs to develop the ability of each player individually or the team in general. The physical condition of the team that consists of mostly young players determines whether each player has a good physical condition. In terms of player mentality and skills, the coach needs to be able to judge the conditions requiring improvement so that all players have excellent conditions and when competing they will achieve maximum results. According to Supriyono (2018), soccer is a game done in two rounds, played by two teams of 11 people. The game is aimed at breaking into the opponent's goal and defending their own goal from the opposing team. It can be concluded that soccer players must be able to master the techniques, skills, and tactics in playing soccer. Thus, a good physical condition will support players to bring out their best abilities during soccer games.

All soccer players need to have the good physical condition because it is the factor greatly influencing the players' achievement. However, the coach needs to always pay attention to the composition of the training program given to their players and provide what is needed to improve the players' physical conditions. The main goal of playing soccer is to make the players have an equal capacity so that they can play collectively by having equal skills, a strong mentality, and excellent physical condition. Those elements also needed to be able to play well even though the coach decide to ask them to play in rotation. It is expected that each player can always maintain and improve their own physical condition.

CONCLUSION

It is concluded that the players' conditions need to be improved during this pandemic by a certain portion of training from the coach and more independent training. The results of this study are beneficial for both coaches and players. Therefore, it is hoped that these results will become a consideration for athletes, especially those who have a concern for football in Pontianak to pay more attention to and prepare for good physical conditions.

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