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ANALISIS KEBUTUHAN TES FISIK SEPAK BOLA PUTRA U-21

NEED ASSESSMENT OF MEN'S U-21 FOOTBALL PHYSICAL TEST

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Abstrak

Prestasi dalam olahraga salah satunya ditentukan oleh kondisi fisik. Kondisi fisik yang baik akan mempengaruhi teknik permainan pemain. Kondisi fisik yang baik juga diperoleh melalui latihan yang terprogram. Pemrograman latihan tentunya ditentukan dengan menggunakan data kondisi fisik awal atlet. Oleh karena itu, pengukuran kondisi fisik perlu dilakukan. Tujuan penelitian ini yaitu untuk mengetahui kebutuhan tes fisik sepak bola putra U-21. Penelitian ini merupakan penelitian deskriptif kuantitatif dengan teknik survei menggunakan *google form*. Subyek dalam penelitian ini yaitu pelatih yang tersebar di seluruh Indonesia berjumlah 30 subjek. Instrumen yang digunakan dalam penelitian ini yaitu kuesioner yang disebar melalui *google form.* Teknik analisis data menggunakan statistik deskriptif menggunakan rumus persentase. Hasil penelitian menunjukkan 93% pelatih menyatakan belum ada tes fisik pada pemain sepak bola U-21 putra. 100% pelatih membutuhkan instrumen yang spesifik sesuai dengan cabang olahraga dan usia yaitu tes fisik sepak bola U-21 putra. Dengan begitu penyusunan tes fisik sepak bola U-21 putra perlu dilakukan.
Kata kunci: analisis kebutuhan, tes fisik, sepakbola

Abstract

One of the achievements in sports is determined by physical condition. Good physical condition will affect the player's game technique. Good physical condition is also obtained through programmed exercise. Training programming is of course determined using data on the athlete's initial physical condition. Therefore, it is necessary to measure the physical condition. The purpose of this study was to determine the physical test needs for men's U-21 football. This research is quantitative descriptive research with survey techniques using gform. The subjects in this study were trainers who were spread throughout Indonesia totaling 30 subjects. The instrument used in this study was a questionnaire distributed via the Google form. Data analysis techniques using descriptive statistics using the percentage formula. The results showed that 93% of the coaches stated that there had been no physical condition tests on male U-21 soccer players. 100% of coaches need specific instruments according to the sport and age, namely the men's U-21 football physical test. With that in mind, it is necessary to prepare the physical test for men's U-21 football.
Keywords*: needs analysis, physical test, football,*

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INTRODUCTION

In the current era of competitive sports, physical condition is an important aspect for athletes who must be nurtured and developed as best as possible (Nurhidayah & Siswantoyo,

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2018). Good quality physical condition has the potential to influence the athlete's technical performance when competing. According to Ramdani et al., (2020) good physical condition is obtained through systematic and continuous programmed exercise. Well-programmed training is training that is adapted to developmental age or age stages in competition. Long-term development training is often called talent development. In long-term development monitoring is not only physical condition but technique, tactics and mentality (Bompa & Haff, 2009). Physical training that is adapted to age, developmental stages or age stages in sports is carried out to reduce the risk of injury (Bompa & Carrera, 2015). Exercising too hard before time can affect body development. Meanwhile, training that is too light does not have an impact on athletes.

One of the ways to prepare a training program is to know the physical condition of the athlete. To find out the physical condition of athletes, tests and measurements need to be carried out. Good tests and measurements use instruments that are suitable for the sport (Saputro & Siswantoyo, 2018). However, not all sports have standard instruments for sports (Nurhidayah & Siswantoyo, 2018). So, when taking measurements, trainers use general instruments, according to the biomotor components they want to know. Therefore, it is necessary to develop physical tests according to sports.

The preparation of physical tests according to sports can also be used by coaches to find out the results of the training given or evaluate. Evaluation needs to be carried out to determine the success of a program given to athletes. To carry out an evaluation, good instruments are needed. A good instrument is an instrument that is objective, valid, reliable and economical (Sudijono, 2016; Mardaphi, 2017). Objective is a test that is carried out based on actual conditions and excludes subjectivity (Sudijono, 2016). Valid, that is, if the instrument used in the measurement has accuracy in measuring (Arnett, et al., 2023; Gabriela, et al., 2023; Sudijono, 2016; Mardaphi, 2017). Reliable is when a measurement instrument has consistency when used to measure, and whoever measures the results will remain the same (Rose, et al., 2023; Mardaphi, 2017; Sudijono, 2016). Economical, meaning that the instruments used are easy to obtain and use (Mardaphi, 2017). Therefore, to prepare an instrument several stages are required. This initial stage is to find out the coach's needs regarding the physical test for Men's U-21 football.

This initial stage was carried out considering that football performance in Papua was declining (Guntoro, Muhammad, & Qomarrullah, 2020). Persipura's relegation from league one is a consideration for researchers to develop a physical test for men's U-21 football. The cause of Persipura's relegation from League 1 was a problem with physical condition (Guntoro, Muhammad, & Qomarrullah, 2020). Apart from that, the gap between junior and senior players was also a factor that caused the Persipura team to be relegated from League 1 (Guntoro, Muhammad, & Qomarrullah, 2020). Therefore, a good training program needs to be prepared. Apart from the exercise program, preparation of physical test instruments also needs to be carried out. This is to obtain data measuring physical condition after and before being given an exercise program. This data becomes the basis for trainers to evaluate the training programs provided. Suitability of assessment indicators with the training program provided can provide accurate assessment results data. So, it is necessary to prepare a physical test for U21 football.

METHOD

This research is quantitative descriptive research using survey techniques. The instrument used in this research is a questionnaire consisting of 10 statements that researchers need to obtain data. Testing the validity of the instrument uses content validity involving 2 physical condition experts, 2 football experts and 3 coaches. Instrument reliability testing used a test-retest technique involving 36 subjects. The content validity of the instrument is 0.78 and

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the reliability of the instrument is 0.71. The scale used in filling out the questionnaire uses the Guttman scale, namely agree and disagree.

The questionnaire can be seen in table 1. The questionnaire, which had been tested for validity and reliability, was then distributed via Google Form from May 1 2023 to May 31 2023. Subjects who filled out the questionnaire were then selected according to the length of time they had been involved as a football coach. The subjects that meet the criteria are trainers who have a minimum of five years of training experience. After selection, 30 trainers were obtained who met the criteria. In detail, the subjects came from 2 FC UNY coaches, 2 FIK UNCEN coaches, 2 Bosesi Futsal Club coaches, 2 SSB Trio Muda coaches, 2 Classy FC coaches, 2 Syekh Yusuf SSB coaches, 2 UNM FC coaches, 2 Rans Nusantara coaches, 2 SBHS FC coach, 2 UII football coaches, and 10 private coaches. The data analysis technique in this research uses descriptive statistics using percentage formulas with the help of Microsoft Excel.

Table 1. Preliminary research questionnaire

No	Statement
1	The good physical abilities of soccer athletes influence the match
2	Physical training in the sport of soccer must be adjusted to the dominant physical components required
3	Various types of training methods are needed to improve the physical condition of each biomotor component/physical component
4	Physical training must be adjusted to the age of the soccer athlete
5	Before providing an exercise program, a physical test needs to be done
6	Physical measurements are carried out to determine the athlete's abilities as a reference in creating training programs as a step to reduce the risk of injury
7	Physical condition measurements need to be carried out several times as an evaluation material for the training provided
8	Measurement of physical condition needs to be adjusted to the characteristics of the sport, for example football (specification principle)
9	There are no special instruments or measuring tools for the sport of soccer
10	It is necessary to prepare instruments or tools to measure physical conditions specifically for the sport of soccer

RESULT

Based on Figure 1 above, it is known that 100% of coaches stated that good physical abilities in soccer athletes have an influence on the match. 100% of coaches stated that physical training in the sport of soccer must be adjusted to the dominant physical components required. 90% of trainers stated that various types of training methods are needed to improve the physical condition of each biomotor component/physical component. 100% of coaches stated that physical training must be adapted to the age of soccer athletes. 97% of trainers stated that before providing a training program, a physical test needs to be carried out. 100% of coaches stated that physical measurements were carried out to determine the athletes' abilities as a reference in creating training programs as a step to reduce the risk of injury. 100% of trainers stated that physical condition measurements needed to be carried out several times as an evaluation material for the training provided. 100% of coaches stated that measuring physical condition needed to be adjusted to the characteristics of the sport, for example football (specification principle). 93% of coaches stated that there were no special instruments or measuring tools for the sport of soccer. 100 percent of coaches stated that it was necessary to prepare instruments or tools to measure physical conditions specifically for the sport of soccer.

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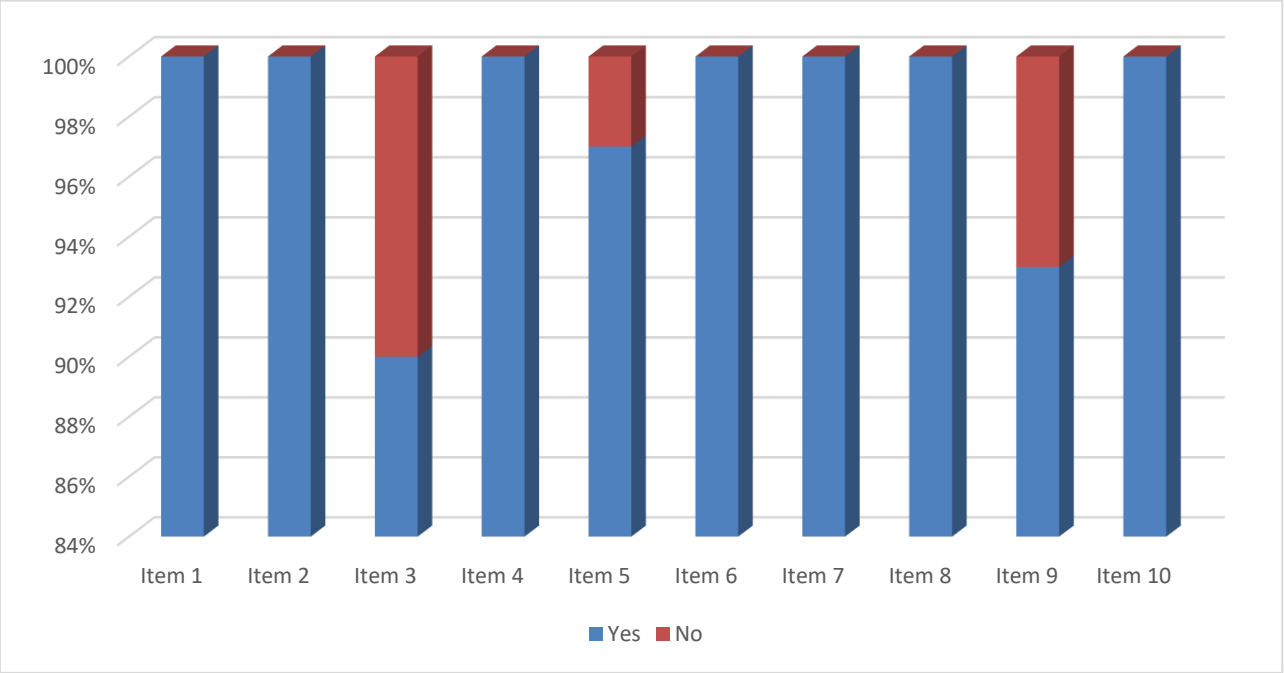

Picture 1. Football coach questionnaire results

DISCUSSION

Based on the research results, 100% of coaches stated that it was necessary to prepare instruments or tools to measure physical conditions specifically for the sport of football. In this case, the U-21 men's soccer physical test. With the arrangement of physical test instruments for U21-Papua football, it is hoped that it will help to improve the quality of football players in Papua. Tests and measurements are very good to do at the beginning, this is done to determine the initial physical condition. When the coach knows the athlete's physical condition, the training program provided will be effective. Because if this is not done, the training program given could be too heavy or too light (Nurhidayah & Siswantoyo, 2018). If the training dose given is too heavy, there is a high risk of players experiencing injury. Meanwhile, if the training dose given is too light then there will not be much change in the training, so the training goals will not be achieved.

Apart from that, the measurement tests carried out can also be used as evaluation material for the training program provided. When there is no change in physical ability, of course the coach will look for a more appropriate method so that the athlete's physical condition improves. Evaluation is very important in long-term training development (Bompa & Carrera, 2015). With the evaluation, each athlete has physical condition data for each stage. Like training, measurements must also use instruments that are appropriate to the characteristics of the sport (Arnett, et al., 2023). This is done so that the resulting data is more in line with the movement characteristics in each sport. For example, research develops physical test instruments for adult pencak silat (Kuswanto, 2016). Research on preparing physical test instruments for adolescent pencak silat for the sparring category was also carried out (Saputro & Siswantoyo, 2018).

Preparing a physical condition test needs to consider several things and procedures. Things that need to be considered are instrument objectivity, instrument validity, instrument reliability and instrument economy (Sudijono, 2016). The procedure for compiling an instrument requires several stages. In the initial stages of preparation, many experts will certainly be involved, including physical condition experts, sports experts, child

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development experts, physical and mental health experts (Saputro & Siswantoyo, 2018). Once it is compiled, it is necessary to test the validity and reliability of the instrument. After getting the validity and reliability values, of course it is necessary to develop norms (Kuswanto, 2016). The preparation of norms is carried out to interpret the value of the results of the measurements carried out. Instrument effectiveness testing also needs to be carried out in the instrument development process (Mardaphi, 2017). After the instrument has been tested, it is ready to be used in the process of developing physical condition in the training process.

Physical condition is an important thing to develop in football. Considering that the physical abilities of soccer athletes influence the match (Bompa, Pasquale, & Cornacchia, 2013). This is because physical condition can support technical abilities to play football. The fast game characteristics and long match duration in football require good physical condition (Agung, Yulifri, Nirwandi, & Putra, 2023). In the final minutes, players generally experience a decrease in stamina. This can cause players to lack focus in playing and affect game technique. To improve physical abilities, practice is needed. The exercises carried out are of course tiered according to the programming stages. Good physical training refers to the biomotor component of a sport, in this case soccer (Bouguezzi, et al.,2023; Bompa & Carrera, 2015). This is done to adjust the energy needs in the sport of football, an energy system that suits the characteristics of the game of football. This is included in the principle of training specifications. Providing a good training program will improve biomotor, technical, tactical and mental abilities (Bompa & Haff, 2009). However, providing training programs that are not the same age can cause athletes to get injured, there will be no increase in training, boredom, which will affect the athlete's mental state.

It is necessary to provide varied training methods for each biomotor component. This is done to reduce athlete boredom during training. Apart from that, providing the right method can improve the capabilities of the biomotor components. For example, the moderate interval training method and increasing its intensity can increase cardiovascular endurance (Terada, et al., 2023). High-intensity interval training and sustained running can improve cardiovascular capabilities (Nduduzo, Mathunjwa , Shaw, & Shaw , 2022). Moderate intensity continuous exercise and HIIT can impact cardiovascular performance and weight loss (Guo, et al., 2023). Weight training can increase an athlete's strength capabilities (Bompa, Pasquale, & Cornacchia, 2013). For example, strength training using the isometric knee extension method can increase muscle strength in the lower body (Hasan, 2023). Strength training can increase kick strength and power (Imran, Rahma, Suprayitno, & Priyambada, 2023). Core strength training exercises can improve the basic skills of soccer players (Li & Siriphan, 2023). Weight training also has an effect on body composition (Sharma, et al., 2023).

Speed, agility and quickness training can increase speed and agility in athletes (Wijaya & Indarto, 2022). Speed, Agility, Quickness (SAQ) training can improve the performance of soccer athletes (Khan, et al., 2023). Calisthenic training can improve athletes' power abilities and aerobic capacity when the frequency and duration of training are well determined (Melton, et al., 2023) can increase athlete's power. Combination exercises of static stretching and electrical mucus stimulation can increase athletes' flexibility abilities (Mizuno, 2023). Proprioceptive Neuromuscular Facilitation (PNF) stretching and static stretching have been proven to increase range of motion abilities (Zaidi, et al., 2023). However, during the detraining period, flexibility abilities and other components can decrease, because the athlete does not do enough exercise (Satria, Andiana, & Abdullah, 2022).

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CONCLUSION

Based on the results and discussion explained above, it can be concluded that it is necessary to prepare an instrument for the U-21 Men's Football Physical Test. Further research is needed to develop a valid and reliable U21 men's soccer physical test instrument. So this test can be used by coaches to determine the athlete's physical condition as a reference in creating training programs according to age stages.

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