PROFILE PHYSICAL CONDITION OF TANGERANG CITY ATHLETES IN PREPARATION FOR PORPROV BANTEN IN 2022

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Article Info

Abstract

The purpose of this study was to determine the profile of the physical condition of athletes in the city of Tangerang in preparation for the sports week of Banten province in 2022. The research method used quantitative descriptive, the population and sample in this study were 40 athletes of Porprov Banten, and the sampling technique used purposive sampling by taking into account the characteristics gender, namely 20 sons and 20 daughters, while the data collection technique was through tests and anthropometric measurements and components of physical condition. Data analysis uses descriptive frequency analysis using the formula $P = \frac{F}{N} \times 100\%$ where P is the percentage sought, F = Frequency and N = Number of samples, overall descriptive analysis of frequency using Microsoft Excel 2019. The results of this study can be concluded that (i) anthropometry consisting of height and weight; and (ii) the physical condition component consists of leg muscle explosive power, abdominal muscle strength, endurance, agility, and speed. This study only involves physical and anthropometric components, for further research by considering social, family, psychological and related environmental factors in improving the achievements of Banten Province athletes

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INTRODUCTION

Sports in Indonesia are now increasingly advanced and popular, there are three divisions of sports in Indonesia contained in the National Sports System Law of 2005, namely Sports Education, Sports Achievement, and Recreational Sports (UU RI, 2005). Sports activities cannot be separated from human life, in exercising each individual has different goals, some have goals for fitness, achievement, and recreation. Sports that aim to achieve optimal achievement require good and regular exercise (Hadi, 2020; Hermawan et al., 2020; Jamalong, 2014).

To achieve maximum achievement an athlete must have completeness i.e.(i) Physical development (physical Buil-Up); (ii Technical Development (Technical Buil-Up); (iii Mental development (Mental Buil-Up); and (iv)Champion Maturity (Bompa & Buzzichelli, 2019). Then to build qualified sports performance the need for scientific study. The study of the development of sports technology has an impact on the sports coaching system of achievement, especially on predictions in physical and physiological terms that can be prepared from the beginning for potential athletes (Donie, 2017; Jamalong, 2014; Tangkudung James, 2006). Physical and physiological functions can be predicted by the science of motor development and motor learning and physiology science (Fitri et al., 2016; Giriwijoyo, S., & Sidik, 2009). From the studies of science that support it, it can be prepared for potential athletes as early as possible effectively and efficiently.

Bompa said there are four aspects of training that need to be considered and trained carefully, namely physical, technical, tactical, and mental training (Bompa & Buzzichelli, 2019). Aspects of physical exercise take precedence because it is the foundation of a sports achievement (Arus, Ph.D. & Arus, 2018; Magill & Anderson, 2016). Physical condition is a very important element in almost all sports (H. Indrawira, U. Maslikah, G. Jariono, H. Nugroho, 2021; Hermawan et al., 2020; Jariono et al., 2020; Ruslan, 2011). Therefore physical exercise needs to get serious attention planned properly and systematically so that the level of physical freshness and functional ability of body tools is better. The four basic physical components of strength are one of the basic physical components that are important because they relate to the quality of motion of an athlete. An athlete can move quickly, can cope with certain loads, maintaining a stable body position requires good quality muscle strength.

Many sports can be used as achievement sports. So that athletes are required to have a good level of physical condition for optimal achievement (Hermawan et al., 2020; Jariono et al., 2020). Athletes who have a good physical condition will affect the appearance of their technique on the field. With good physical condition and good play, athletes can achieve optimal achievements. Phase a principle to achieve optimal achievement goals in each sport must be based on the principles of the approach to sports science.

One of the supporting achievements of athletes to achieve is anthropometry and the quality of physical conditions. Anthropometry is a study that looks at the relationship between the structure and function of the human body related to human gestures (Fatoni et al., 2019; Penggalih et al., 2018). Anthropometry is applied to a wide area of discipline, for example in sports biomechanics, ergonomics, growth and development, natural sciences, health, nutrition, and physical therapy, health care, physical education, and the field of

sports science. While the physical activity of an individual is an important asset in sports that requires a physical cauldron, as a consideration of the main criteria for achieving good achievement (Aprilia, 2018; Jariono et al., 2020; Subarjah, 2013).

As it is known that to reach the peak of sports achievement many factors determine among them through training methods that are one of the keys to success and with a scientific approach mastered by a coach will be able to help in the process of achieving targeted goals (Hutajulu, 2016; Lesmana et al., 2016). A coach who trains only based on experience alone will find it difficult to achieve the target because of what is experienced since becoming an athlete is also done when becoming a coach, even though sports science is experiencing rapid development. Today's coaches should avoid using conventional approaches, by rejecting new concepts unlikely to succeed in coaching. One of the important things in the process of anthropometric measurement and physical condition is to know the physical athlete through physical tests.

The data obtained through research conducted will answer many questions that have not been able to be revealed scientifically things related to technical factors, such as the selection of athletes through anthropometric tests, physical conditions, and related to the development of athlete achievements and sports branch builders in our homeland. It is hoped that the answers related to the results of the research conducted will help contribute to the improvement of Indonesia's sporting achievements. The purpose of this study is to find out the profile of the physical condition of athletes in the preparation of Porprov Banten 2022 which is seen from the physical profile tested and measured is Anthropometry and Physical conditions components. Porprov is synonymous with provincial sports week.

METHODS

The quantitative descriptive method used in this study is a study that collects data obtained from survey results obtained data from tests and measurements, consisting of anthropometric tests consisting of height and weight while physical condition components consist of the explosiveness of leg muscles, abdominal muscle strength, endurance, agility, and speed. The data analysis used in this study is by statistical calculation using descriptive analysis of percentages. After the data is obtained, then continued by analyzing the data to conclude this study using quantitative descriptive analysis techniques with the percentage of data using descriptive analysis of frequencies using formulas $P = \frac{F}{N} \times 100\%$ where P is the percentage sought, F = Frequency and N = Sample number, overall descriptive analysis of frequency using Microsoft excel 2019.

Participants

The population and sample in this study were 40 Tangerang city athletes with gender characteristics of 20 male and 20 female, Technik taking a slingshot using purposive sampling. This research was conducted at Benteng Jalan Taman Makam Pahlawan Tangerang Stadium No.72, Sukaasih Kec. Tangerang Rt.001 Rw.002 Sukaasih Kec. Tagerang, Tangerang-Banten City on August 5, 2021.

Sampling Procedures

The sampling procedures in this study are: (i) researchers took random samples in athletes in preparation for Porprov Banten 2022 by considering the sex characteristics of a population of 100 people netted to 40 athletes; (ii) after the sample is met, the researchers and the team conduct anthropometric tests and

measurements and physical conditions, and (iii) samples taken as a basis for netting athletes who will be incorporated in the athlete training center in Banten province.

Materials and Apparatus

The tools and materials in this study are (i) weight scales to measure weight. height measured by a weight gauge with a unit of kilograms; (ii) height size standing body position (vertical) with legs attached to the floor, the position of the head and neck upright, the average view of the water, chest exhaled, flat stomach and breath for a while measuring instrument using a Stadiometer or tape measure; and (iii) physical condition test using tests and measurements of flexibility using sit and reach test, the explosiveness of leg muscles using vertical jump tests, and abdominal muscle strength tests using sit-up tests.

Procedures

The procedure of collecting research data on the profile of physical condition of athletes in preparation for Porprov Banten 2022 consists of anthropometric measurement tests and physical conditions. the study is(1) Anthropometric Test consisting of height (cm) and Weight (kg), (2) Physical conditionic Ability Test or Physical ability consists of Flexibility Test with cm unit, Limb muscle explosive test using Vertical Jump with centimeter (cm) assessment unit, Abdominal muscle strength test with Sit-up with number assessment unit performed in 1 minute.

RESULTS

1. Data description

Based on the results of descriptive analysis of frequencies about anthropometric tests and measurements and physical conditions consisting of average values and standard deviations can be seen in the following histogram:
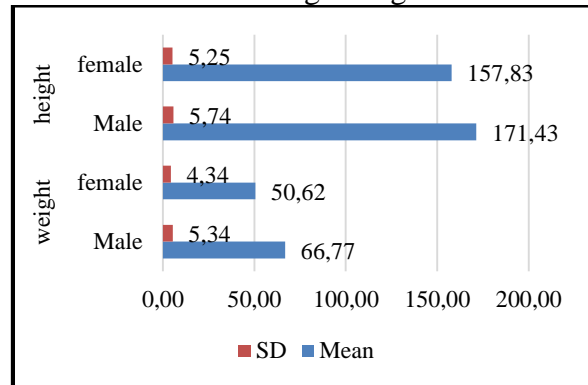

Figure 1. Histogram average value and standard anthropometric deviation of male and female

Based on figure 1 it can be explained that anthropometry for weight indicators obtained an average value for men of 66.77 Kg while for femalees of 50.62 Kg. The standard deviation for males is 5.34 and for girls by 4.74. As for the height, the indicator obtained an average value for the son of 171.43 cm while for the female of 157.83 cm. The standard deviation for the male is 5.74 and the female is 5.25. Furthermore, the analysis of physical condition consists of flexibility, limb explosiveness, and abdominal muscle strength tests, the results of the data analysis can be seen in the following table:

Table 1. The results of descriptive analysis of the average value and standard deviation of the physical condition of the prince and female

Variable		Physical condition	
		Mean	SD
Flexibility	Male	33.73	5.31
	Female	29.55	4.96
The explosive power of leg muscles	Male	33.83	5.25
	Female	30.20	5.39
Strength of the abdominal muscles	Male	41.15	5.37
	Female	21.6	2.76

Based on table 1 about the profile of the physical condition of Tangerang city athletes in preparation for Porprov Banten 2022. The physical condition profile consists of tests: (i) flexibility is obtained the average value for the son of 33.73 cm while for the female of 29.55 cm. The standard deviation for males of 5.31 and femalees of 4.79; (ii) the explosive power of the leg muscles is obtained an average value for the son of 33.83 cm while for the female of 30.20 cm. The standard deviation for males of 5.25 and femalees of 5.39; and (iii) the strength of the abdominal muscles obtained an average value for the son of 33.83 cm while for the female of 30.20 cm. The standard deviation for the male is 5.25 and the female is 5.39.

DISCUSSION

After the results of the analysis of the physical condition profile of athletes in the preparation of Porprov Banten 2022 which is seen from the physical profile tested and measured is anthropometry, and physical condition components, aim to strengthen the results of the research findings. These components need to be followed up with a continuous training process and must pay attention to technological developments. So that the findings of this study are useful for both male and female athletes to achieve better achievements.

This research was conducted to determine the physical condition profile of Tangerang city athletes in preparation for Porprov Banten 2022. Bring some of the initial value gained in research into the literature, aim to create a reference guide for coaches, sports scientists.

The development of sports science that becomes the theoretical basis for the development of sports will certainly make a valuable contribution to the achievements of the sport itself. Anthropometric factors, one of which is anthropometric factors as a study of the measurement of the human body related to the dimensions of bone, muscle, and adipose (fat) tissue, has now made its insights for sports science.

Furthermore, physical condition as a fundamental element in all sports activities is an absolute necessity for sports players, especially sports achievement (Erickson et al., 2014; Khalili Moghaddam & Lowe, 2019). The relevant physical condition must be possessed by every sports achievement player.

The results of this study are in line with previous research conducted by several researchers, namely (Fachrezzy et al., 2021; Piepiora et al., 2019; Sukmawati, 2020; Yüksel & Sevindi, 2018) the results of this study showed that anthropometric factors and the quality of physical conditions determine qualified achievements in addition to social environmental factors, psychology and those related to determining athlete achievement.

Anthropometry is a numerical data set that deals with characteristics of the human body such as the size, shape, and strength and application of such data for the handling of design problems(Fatoni et al., 2019; Penggalih et al., 2018). Anthropometry is the study and measurement of the dimensions of the human body. Anthropometry is the measurement of the dimensions of the body or other physical characteristics of the body that is relevant to the design of something that people wear.

Physical condition is an ability that is directly associated with the needs of a particular sport (Fachrezzy et al., 2020; H. Indrawira, U. Maslikah, G. Jariono, H. Nugroho, 2021; Hermawan et al., 2020; Jariono et al., 2020; Nugroho et al., 2021). To achieve sports achievement are many factors that affect each other in it. The ability factor of physical condition is

a very important one, for it needs to be processed and measured to see whether there is progress or not. Because every sport is not the same physical condition required. Each particular sport or discipline requires the ability of its special physical condition and specifics.

CONCLUSION

The results of this study can be concluded that to determine sports achievement one of them is to identify the Physical Condition Profile of Tangerang City Athletes in the Preparation of Porprov Banten 2022.

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