

# Review of the Physical Condition of Pencak Silat Lubuklinggau Athletes

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**Abstract.** The purpose of the study was to determine the level of physical condition of athletes in the Pencak Silat Lubuklinggau. This type of research is descriptive. The population of this study was the athletes of the Pencak Silat Lubuklinggau. The sampling technique used a purposive sampling technique in the pre-adolescent and adolescent age group of 33 athletes. Data retrieval was done by testing physical conditions consisting of speed using a 30 m run test, leg muscle strength using back and leg dynamometer test, leg muscle explosive power using the standing board jump test, flexibility using Flexiometer test and durability use the bleep test. Analysis of research data using descriptive statistical techniques with the calculation of the percentage of  $P = F / N \times 100\%$ . From the data analysis, the average level of physical condition of athletes in the Lubuklinggau Pencak Silat is in the sufficient category.

Keywords: Physical Condition · Pencak Silat

## 1 Introduction

Sports achievement is a sports activity that is carried out and managed professionally with the aim of obtaining optimal achievements in sports. Athletes who pursue one particular branch to achieve achievements from the regional, national, and international levels, have a level of physical condition and must have skills in one of the sports they pursue. As stated in the Law of the Republic of Indonesia number 3 of 2005 concerning the national sports system, namely, "Sports achievement is a sport that fosters and develops sportsmen in a planned, tiered and sustainable manner through competitions to achieve achievements with the support of sports science and technology".

Based on the above quote, sports achievement is intended as an effort to improve the ability and potential of sportsmen in order to improve the dignity and dignity of the nation carried out by everyone who has the talent, ability and potential to achieve achievements with careful preparation, planned and well organized. Sports achievement coaching is sports coaching that is done with the aim of achieving a sporting achievement. In this case, it can be interpreted that the coaching of the sport is aimed at facing competitions or matches ranging from a low level to the international level. One of the achievement sports in Indonesia is pencak silat. Pencak silat is one of the achievement sports that are

contested starting from the sub-district, regency / city, National and even International levels. The success or achievement of a person in the field of sports depends largely on the quality of physical ability (physical condition) he has.

Bayu Purwo Adhi, et al. (2017: 8) explained that excellent physical condition must be owned by every athlete or sportsman in accordance with the sports activities or sports they pursue. The better a person's physical condition, the greater the chance to achieve. Vice versa, the lower the level of physical condition, the more difficult he is to achieve achievements. Physical condition also affects the quality of techniques and tactics. If the physical condition is good, then the implementation of techniques and tactics will run well.

Pencak silat is a martial arts sport that was born and developed in Malay society. At first pencak silat served as a tool to defend themselves from various threats. Along with its development, the function of martial arts is not only as a martial tool but is used as a means of sports, a means of pouring out love for aspects of beauty (aesthetics), and a tool of mental and spiritual education. (Defiyanti, et al.: 2016).

The training of Lubuklinggau martial arts athletes in the last five years has been implemented, but the achievements obtained still have not achieved the expected goals. Since the last two years, the achievements of this martial arts athlete have never been a general champion. Pencak Silat Lubuklinggau at the Man 3 Padang Open Championship 2017 Hand Student Pencak Silat also did not get a champion at all. (Coach of lubuklinggau martial arts athletes).

The achievement of athletes in participating in a game is generally determined by two factors, namely internal factors and external factors. Internal factors are factors that come from the individual self of the athlete himself, which is everything in the form of potential that the athlete has that can determine and influence achievement. While external factors are factors that come from outside the athlete's self that can affect his achievements such as coaches, facilities and infrastructure, training programs, motivation and other external factors.

In achieving achievements in the sport of martial arts is something that has always been desired by many athletes, but to achieve these achievements is not as easy as many people think. Many factors influence among them as stated by Syafruddin (2013), that there are four main elements or components needed by an athlete to achieve an achievement in sports, namely physical condition, technique, tactics and mental (psychic). These four components cannot be separated from each other. While the components of physical condition in the sport of martial arts, namely, include strength, speed, strength, flexibility, coordination, power, agility, balance, accuracy, and reaction. In addition, the components of physical conditions that are more dominant in martial arts sports include: Speed, strength of the limb muscles, explosiveness of the limb muscles, flexibility and maintainiveness.

Based on the reality in the field encountered by researchers, Pencak Silat Lubuklinggau coaching has been carried out regularly since the last few years, but the achievements obtained have not been in accordance with what was expected. This year Pencak Silat Lubuklinggau athletes did not win medals at the O2SN junior and high school championships, it is suspected that physical condition is also one of the causes of athletes when competing lack of concentration, easily exhausted in the last round and lack of maximum in carrying out attacks. This caused the athlete to be unable to win the match, so the achievements of Pencak Silat Lubuklinggau athletes decreased.

If you consider the explanation of the components of physical conditions described above, it can be seen that the role of physical conditions greatly affects the achievement of achievements in martial arts. Furthermore, if you pay attention to previous experience, where one indication of the cause of the failure of the martial arts team is a lack of physical condition, then it is natural that the physical condition of the athlete must be considered in such a way. And therefore it is felt necessary to know how the level of physical condition of Pencak Silat Lubuklinggau athletes.

Based on the dominant factors that affect the decline in the achievement of martial arts athletes described above, the author wants to conduct a study entitled; "Review of the Physical Condition of Pencak Silat Lubuklinggau Athletes".

# 2 Methods

# **Types of Research**

The research studied belongs to a type of descriptive research that aims to describe a review of the physical condition of martial arts athletes Lubuklinggau. The design of the study in this study, researchers used test methods for data retrieval.

### Place and Time of Research

This research was carried out at Pencak Silat Lubuklinggau City, Jl. Keswari Kel. Bandung Kanan Kec. Lubuklinggau Barat II Lubuklinggau City. The samples in the study were the pre-teen age group (12–14 years old) and adolescents (14–17 years). The sample was 33 people, consisting of 21 sons and 12 daughters. This study was conducted from December 2018 to January 2019.

#### **Research Instruments**

The instrument used in this study is a physical condition test that is arranged based on the needs of martial arts sports. The components of the test are speed using a 30-m run, leg muscle strength using a dynamometer leg, leg muscle explosiveness using a standing board jump, flexibility using flexiometer test and endurance using blee test.

## **Data Analysis Techniques**

This research is a type of descriptive research with the aim to see the level of physical condition of Pencak Silat Lubuklinggau athletes, then the analysis technique that can be used is to use frequency distribution techniques with percentage calculations. With the formula (Arsil, 2017):

$$P = \frac{F}{N} \times 100\%$$

Information:

P = Percentage.

F = Respondent's frekunsi (score obtained).

N = Number of samples or respondents.

## 3 Results

The results of the research to be outlined include: description of the results of data on the review of the physical condition of pencak silat athletes in Lubuklinggau City.

Review of Physical Condition of Pencak Silat Lubuklinggau Athletes.

Based on research data, the review of the physical condition of male and female athletes Pencak Silat Lubuklinggau in the category is quite enough, because the average review of the physical condition of male athletes and female athletes amounts to 50. Distribution of frequency of review of the physical condition of Pencak Silat Lubuklinggau athletes as seen in the Table 1.

Based on the calculations in the Table 2, it can be seen that: 1 person (5%) male athletes and 1 person (8%) or women in the category are very good using the 5 A assessment scale, then 8 people (38%) male athletes and 2 people (17%) female athletes in the good category use the 5 A assessment scale, while 5 people (24%) male athletes and 6 people (50%) female athletes in the category simply use the 5 A assessment scale, Then 5 people (24%) male athletes and 3 people (25%) female athletes in the less category use the 5 A rating scale, as well as 2 people (10%) male athletes and none of the female athletes in the less category using the 5 A rating scale.

Syafruddin in sepriadi (2018), stated that, "the ability of an athlete at the time of competition is influenced by factors of physical condition, technique, tactics and mentality". Physical condition factors will also affect the athlete's achievement. Physical

No	Category	Interval Class	Absolute Frequency	Relative Frequency
1.	Very Good	≥59.66	1	5
2.	Good	53.22 -59.65	8	38
3.	Enough	46.78 – 53.21	5	24
4.	Less	40.34 – 46.77	5	24
5.	Very Lacking	≤40.33	2	10
Sum			21	100

Table 1. Distribution of Frequency of Physical Condition of Male Athletes

Table 2. Distribution of Frequency of Physical Condition of Female Athletes

No	Category	Interval Class	Absolute Frequency	Relative Frequency
1.	Very Good	≥62	1	8
2.	Good	54 - 61	2	17
3.	Enough	46 - 53	6	50
4.	Less	38 - 45	3	25
5.	Very Lacking	≤37	0	0
Sum			12	100

condition also affects the quality of techniques and tactics. If the physical condition is good, then the implementation of techniques and tactics will run well.

In addition (Sepriadi, 2018), explained the elements of physical condition are, "endurance (endurance), strength (strength), explosive power (power), speed (speed), flexibility (flexibility), agility (agility), balance (balance), and coordination (coordination)". In martial arts, various elements of physical condition are needed, including speed, strength of the limb muscles, explosiveness of the limb muscles, flexibility and endurance.

Speed is one of the elements of physical condition that processes the innervation system and its muscle tools to make movements against the body that moves using a certain unit of time. Speed is very dependent on strength, because without strength, speed can not only develop or increase. If an athlete wants to develop or increase his speed then he must develop strength, because the speed ability obtained depends largely on the strength of the force and is a product of the body's time and the speed of the body itself. Speed is also one of the factors that determine a person's ability to cross. Fighters who have speed will be able to carry out attacks quickly. By having speed, the attack carried out will be difficult to anticipate by the opponent, so it will produce points.

Strength is the ability of muscles to cope with a load through muscle work that can be demonstrated by an individual's ability to pull, push, lift or press an object or hold the body in a hanging position. And in the sport of martial arts, strength is also one of the factors that determine the ability of fighters in competing. Because by having the strength of a fighter is able to lift the opponent to take down the opponent. In addition, strength is very beneficial in giving birth to the strong or not punches and kicks of a fighter. To give birth to good strength, it is necessary to be trained continuously.

Explosive power is the ability of the athlete to overcome the resistance with a high contraction speed, explosive power is a combination of maximum speed and maximum strength, this explosive power must be indicated by the displacement of the body (in attack defense), where the muscles must exert force at a high speed, in order to carry the body or object at the time of execution of motion to be able to reach a distance.

In pencak silat requires a really good explosive power in its implementation. In addition to requiring speed and strength when attacking, the fighter must also have good explosive power, so that the fighter is able to attack strongly and quickly and the attack carried out will be difficult for the opponent to anticipate.

Flexibility is the ability of the joints / wrists to be able to perform movements in all directions optimally. Flexibility plays a huge role in learning movement skills and in optimizing the abilities of other physical conditions. Flexibility is one of the defining elements of physical condition in learning movement skills, preventing injury, developing strength, speed, sustainance and coordination. Pencak silat requires an element of flexibility, this is intended so that the fighter is able to perform movements that require explosive power. Furthermore, flexibility is the ability of the body such as joints / wrists to perform movements in all directions optimally. In pencak silat flexibility is needed in carrying out attacking movements, dodging, and falling.

Endurance is one of the important elements of physical condition, because of the basis of other elements of physical condition. The heart is the main driving force in the human body. Without the heart man would not be able to do whatever he wanted, in

another sense man could not live. The main goal of sustainance training is to improve the working ability of the heart in addition to improving the working ability of the lungs and circulatory system. These three components are the basis for developing other abilities. Pencak silat is one of the matches that require endurance for a long period of time. Endurance is important in a martial arts championship, because in martial arts matches are carried out for a period of 2 clean minutes in one round, with the number of rounds 3. That means 6 min a fighter performs continuous physical activities with various forms of movement such as kicking, hitting, slamming and so on which obviously requires high endurance. To practice endurance can be done in various ways, one of which is by using aerobic exercises, such as long-distance running and so on.

The average review of the physical condition of male and female athletes of The Pencak Silat Elang Putih Of Lubuklinggau City is categorized as sufficient. In the sport of martial arts an athlete who has speed, strength of limb muscles, explosiveness of leg muscles, flexibility and good endurance will be able to improve the physical condition of athletes in competing martial arts. If an athlete in martial arts competition has a good physical condition, then the athlete will be able to improve his achievements in the sport of martial arts. If the physical condition of speed, strength of the limb muscles, explosiveness of the limb muscles, flexibility and endurance are not owned by athletes in martial arts competitions then during training and matches athletes will quickly feel fatigue, less agile and not agile in competing and less able to play well during the match. For this reason, good exercise is needed to improve and maintain the physical condition of speed, strength of the limb muscles, explosiveness of the limb muscles, flexibility and endurance of athletes for optimal achievement achievement.

# 4 Conclusion

Based on the results of research that researchers have outlined, it can be concluded as follows, the ability of the Physical Condition of Pencak Silat Lubuklinggau Athletes in the category is sufficient.

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