

# PROCEEDING



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# **The 1<sup>st</sup> International Conference on Sports Science and Health**

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## **PREFACE**

*Assalammualaikum Warrahmatullahi Wabarakatuh*

The honorable speakers, Prof. Saleh Aman (Malaysia), Feeder Mahmood (Singapore), Matthew Lantz Blaylock (US) and Suroto,. (Indonesia).

First of all, on behalf of the committee of the International Conference Sport Science and Health let me express great thanks to God Allah SWT who gives us opportunity and health, so that we can join this International Conference Sport Science and Health. It is my pleasure to welcome you to the International Conference Sport Science and Health in Faculty of Sport Science Malang State University. The international conference is in order to celebrate the 63th anniversary of Malang State University. In this opportunity, we invite four speakers from four countries; they are from Malaysia, Singapore, Alabama, and Indonesia. The participants of the conference are 250 participants. The presenters of the conference are 35 presenters.

Finally, allow me to express my gratitude to all audiences, especially the honorable speakers and the distinguished guests for paying attention to this seminar. I hope that the conference will run well and be successful. Thank you very much.

*Wassalamualaikum Warrahmatullahi Wabarakatuh*

## Welcoming Speech of Rector Universitas Negeri Malang

Malang, 23 September 2017

Dear ICSSH 2017 participants,

Welcome to the first International Conference on Sport Sciences and Health 2017 (ICSSH 2017).

The Faculty of Sport Sciences in Universitas Negeri Malang is our second youngest faculty which has just been established in 2008. At the moment the Faculty of Sport Sciences has five Departments; Physical Education and Health Sciences, Sports Science, Sport Coaching Education and Public Health and Postgraduate Program of Sports Education.

The International Conference on Sport Sciences and Health is a milestone for the Faculty of Sport Sciences to open the possibility of collaborating to practitioners around the world, building amazing networking aiming to develop the sports and health education in Indonesia.

I warmly welcome the conference participants to Malang, Indonesia. This conference invites you all to extensively and intensively explore and discuss various aspects of how young people facing the global economic challenges.

Indonesia actively and dynamically learns how to engage its people to perform daily exercise and conducting healthy life style, thus, we love to explore any possibilities by learning from the diverse experiences of other countries. Indonesia also enthusiastically joins the world on empowering young people to be the motor of country's economic development. The conference sums it up on this year's theme of "Preparing Young People in Global Economic Challenges in Sport and Health".

Universitas Negeri Malang is committed to supporting the forum to share ideas, insights, and interesting strategies to nurture the sport and health culture for all people. Hence, we are delighted to see many academics, researchers and practitioners, teachers and students to actively participate in this conference. Please do take as much benefit as you can from this conference and enjoy Universitas Negeri Malang.

Regards,

Dr. Syamsul Hadi, M.Si., M.Ed  
Vice Rector  
Universitas Negeri Malang

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## NUTRITIONAL STATUS OF INDONESIAN MARTIAL ARTS ATHLETE

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**Abstract:** Pencak silat in Kediri has great target in some competitions. The good physical condition can't be achieved if the athletes' nutrition is inadequate. The population of this research was all of Pencak silat in PUSLATKOT Kediri which consisted of 11 athletes. The measurement of athlete nutritional status used test of IMT. The research findings show that: 9 % athlete in skinny category [1 athlete], 72 % are ideal category in normal nutrition [8 athletes], and 18.8 % are fat category. Therefore, it can be concluded that the athletes' nutrition is good.

**Keywords:** *Nutrition Status, Pencak silat Athletes Kediri*

In this modern era, especially in the era of globalization, people are forced to be able to face the cooperative competition, both within and outside the country. One of the ways to anticipate the competition is by improving the comprehensiveness of human resources quality. According to Harsono (2006: 1) Based on the purpose and function, there are some kinds of sports such as sports education, recreational sports, sports health, disability sports, sports healing and sports achievements. Sports achievement is the activity that done and managed by a professional which is has the aim for achieving the optimal achievement in sports. From the various types of sports achievements that exist, Pencak silat is the one the rapidly growing sport in Indonesia.

The better a person's nutritional status, if it is got the regular physical exercise, the higher the number of their physical fitness. If the nutrition intake in the body is less, it makes the nutritional status becomes worse, so the person will not have enough energy to do physical activity in everyday life. The influence of nutritional status in humans is very complex, among others can affect mental development, growth, productivity and work ability, development and physical function. Other effects in adults include: increased degenerative diseases, such as coronary heart disease, diabetes mellitus, hypertension, liver disease, and neoplasm such as tumors and cancer.

Sumosardjuno (1990: 66), the physical condition of human beings will greatly affect the mental health and vice versa. Thus physical fitness will greatly affect job satisfaction. *Pencak silat* is the result of Indonesian human culture to defend/maintain its existence (independence) and integrity (improving the quality) to the environment in order to increase faith and piety to God Almighty. *Pencak silat*: as an infrastructure and means to form a complete human being who is *Pancasilais*, healthy, strong, well skilled, agile, calm, patient, is a knight, believe in yourself. *Silat* the definition is according to IPSI (1975). Although Provincial Sports Week (Porprov) is still a long time later but a lot of regional championships will be held in East Java. KONI Kediri continues to improve the performance of its athletes. One of them is by intensifying evaluation of the results of the training camp city (Puslatkot). Evaluation is done by looking at the results of achievement test athletes. The results of these evaluations will be transparently communicated with all sports (sports) so as to obtain optimal results.

Looking at the achievement of *Pencak silat* Kediri, the achievement of *Pencak silat* athletes in Kediri has donated many medals in regional competition, as well

as national competition. Therefore, the achievement target of the *Pencaksilat* team of Kediri city from various races is very high and moreover the *Pencaksilat* team of Kediri gets a full support from the citizens and the mayor of Kediri. Because of that reason the *Pencaksilat* team of Kediri always prepares everything in order to face a race, including the physical condition. The good physical condition will not be achieved when the nutritional status of the athlete is inadequate.

Nutrition (nutrient) is a chemical bond that the body needs to perform its function of producing energy, building and maintaining the network and regulating the processes of life. (Almatsier, 2002: 3). *Pencaksilat* coaches need to monitor the development and growth of their trainers during practice. In spite of they are arranging the training programs, the trainers should look at the nutritional status of athletes. So they will be able to choose the right level of exercise for the *Pencaksilat* athletes in order to avoid the Over Training. Nutritional status and endurance of *Pencaksilat* athletes PULATKOT Kediri is rarely known by the boss and leaders either from the center or region, so the researcher encouraged to examine "Nutritional Status of *Pencaksilat* Athletes PUSLATKOT Kediri Year 2017"

Nutrition is the process of organism using normally consumed food through the process of breaking food, digestion, transportation, storage, metabolism and expenditure of substances that are not used to maintain the normal life, growth and function of the organs and generate energy (Supariasa, 2002:17). According to the World Health Organization (WHO) nutrition is the main pillar of health and well-being throughout the life cycle.

Similarly, Almatsier (2002: 3) pointed out that nutrients are the chemical bonds the body needs to perform its functions of generating energy, building and maintaining tissues and regulating life processes. All these nutrients are derived from the food that people consume daily. Food or nutrients is one determinant of the quality of physical performance and growth of a person (Irianto, 2007: 1). According to Irianto (2007: 5) there are generally three uses for food for the body (e.g: food source), e.g: energy sources (carbohydrates, fats, and proteins), sources of builders (proteins, and water) and sources of regulators mineral).

According to Irianto, (2007: 140-141) healthy food pattern that is "*4 SEHAT 5 SEMPURNA*", the pattern needs to be complemented with healthy balanced food criteria include quantity enough, proposal, quite quality, healthy/hygienic, natural fresh food, vegetable foods are healthier than animal, how to cook do not over do it, organized in the presentation, frequency 5 times a day, drink 6 glasses a day. According to Soekirman (2003: 62) nutritional problems is a disruption in some aspects of the welfare of individuals and / or society caused by the non-fulfillment of the need for nutrients obtained from food. Nutrition status is the expression of the state of balance in the form of certain variables, or the embodiment of nutrients consumed in the form of certain variables (Supariasa, et al, 2002: 18).

According to Almatsier (2002:3) nutritional status is the state of the body as a result of food consumption and the use of nutrients. Nutritional status is a good indicator of poor daily food supply. Furthermore, a good nutritional status is needed to maintain fitness and health, to help growth for children, and to support sports performance improvement (Irianto, 2006: 56). National nutritional status as well as optimal nutrition occurs when the body gets enough nutrients is used efficiently, thereby enabling the best possible physical growth, brain development, work ability and level (Almatsier, 2002: 9). The nutritional status of a person is said to be good when there is a balance and harmony between physical and mental development, there is a close attachment between the transport levels of nutrient storage in the body, metabolism, and discharge of substances



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that have not been used by the body. *Pencaksilat* is the result of Indonesian human culture to defend/maintain its existence (independence) and integrity (approving the quality) to the environment in order to increase faith and piety to God Almighty. *Pencaksilat*: as an infrastructure and means to form a complete human being who is *Pancasilais*, healthy, strong, well skilled, agile, calm, patient, is a knight, believe in yourself. (Definition of silat according to IPSI (1975))

**METHOD**

Population is the whole subject of the study (Arikunto, 2006: 130). The number of population in this study is all athletes of *Pencaksilat*: who are members of Kota Kediri City Training Center (Puslatkot) which amounts to 11 athletes. Then this research uses saturated sampling technique where all population is used as sample. According to Sugiyono (2001: 61) that, "saturated sampling is a technique of determining the sample when all members of the population used as a sample. This is often done when the population is relatively small, less than 30 people".

Data collection technique used in this study is tests and measurements. To obtain the appropriate data, this study use survey methods and test techniques. Implementation of tests and measurements in order to obtain data according to research variables is to use the Body Mass Index Test is weight in kilogram (kg) divided by height in squared meters (m<sup>2</sup>) (Sugondo, 2006). IMT is the most commonly used and practical indicator for measuring population levels of overweight and obese adults in adults. IMT can estimate the amount of body fat that can be assessed by weighing under water ( $r^2 = 79\%$ ) by then making corrections to age and sex (Sugondo, 2006). Based on IMO measurement method according to WHO 2011, to determine the body mass index samples then done by: sample measured in advance weight with the scale then measured the height

**RESULTS**

To determine the nutritional status of *Pencaksilat* athletes as reference of trainer in determining the exercise program, the researcher conducted data analysis on several athletes that have been measured body mass index (IMT) campus 4 University of Nusantara PGRI Kediri. The data will be processed descriptively to answer the formulation of research problems. Based on the results of the test data will be described as follows:

**Table 1. Descriptive data results Body mass index of martial arts athletes PUSLATKOT Kediri:**

No	Initial	Age	Height	Weight	BMI	Category
1	AMH	18	164	59	21,94	ideal
2	MRA	17	171	70	23,94	ideal
3	MAB	17	170	79	27,34	Overweight
4	RMK	17	163	50	18,82	ideal
5	RMNH	18	165	51	18,73	ideal
6	NSWY	17	164	60	22,31	ideal
7	IR	18	150	64	28,44	Overweight
8	MAA	16	167	69	24,74	ideal
9	FMH	16	155	52	21,62	ideal
10	WS	16	155,5	48	19,98	ideal
11	RAP	15	153,5	48	20,50	ideal

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**Table 2: Categories of Body Mass Index (IMT)**

BMI Range	Categories
18,4 below	Under weight
18,5- 24,9	Ideal
25- 29,9	Overweight
30-35,9	Fat
36 – 40,9	Very Fat
41 above	Obesity

Source: *Center for Research and Education 2007*

## DISCUSSION

Sumosardjuno (1990: 66), the physical condition of human beings will greatly affect the mental health and vice versa. Thus physical fitness will greatly affect job satisfaction. *Pencaksilat* is the result of Indonesian human culture to defend/maintain its existence (independence) and integrity (approving the quality) to the environment in order to increase faith and piety to God Almighty. *Pencaksilat*: as an infrastructure and means to form a complete human being who is *Pancasilais*, healthy, strong, well skilled, agile, calm, patient, is a knight, believe in yourself. *Silat* the definition is according to IPSI (1975). Although Provincial Sports Week (Porprov) is still a long time later but a lot of regional championships will be held in East Java. KONI Kediri continues to improve the performance of its athletes. One of them is by intensifying evaluation of the results of the training camp city (Puslatkot). Evaluation is done by looking at the results of achievement test athletes. The results of these evaluations will be transparently communicated with all sports (sports) so as to obtain optimal results.

Looking at the achievement of *Pencaksilat* Kediri, the achievement of *Pencaksilat* athletes in Kediri has donated many medals in regional competition, as well as national competition. Therefore, the achievement target of the *Pencaksilat* team of Kediri city from various races is very high and moreover the *Pencaksilat* team of Kediri gets a full support from the citizens and the mayor of Kediri. Because of that reason the *Pencaksilat* team of Kediri always prepares everything in order to face a race, including the physical condition. The good physical condition will not be achieved when the nutritional status of the athlete is inadequate. Nutrition (nutrient) is a chemical bond that the body needs to perform its function of producing energy, building and maintaining the network and regulating the processes of life. (Almatsier, 2002: 3). *Pencaksilat* coaches need to monitor the development and growth of their trainers during practice. In spite of they are arranging the training programs, the trainers should look at the nutritional status of athletes. So they will be able to choose the right level of exercise for the *Pencaksilat* athletes in order to avoid the Over Training.

## CONCLUSION

The results showed that the nutritional status of athletes *Pencaksilat* Center City Training (PUSLATKOT) Kediri mostly entered in the normal category. In detail as many as 1 person (9%) had less weight in nutritious category category, as many as 8 people (72%) had ideal body weight of normal nutritional status category, 2 people (18,8%) excess weight and no people who have nutritional status in the obese category. so it can be concluded the nutritional status of martial arts athletes in good considents.

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