



Wushu Athlete Physical Fitness

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Abstract

Wushu is a martial arts sport that originates from China and is starting to develop in Indonesia. Wushu activities as a whole in Indonesia have been stopped due to the COVID 19 pandemic, causing many athletes to be unable to display their best abilities. As evidenced by training at Jakabaring Sport City (JSC), athletes quickly get tired due to lack of training activities, which also results in poor body condition. To achieve maximum performance, an athlete must definitely have good physical fitness. In this research, we used the Indonesian Student Fitness Test which consists of Body Mass Index (BMI), Sitting Reach Test V, Sit Up Test 60 seconds, Squat Push Test 30 seconds, and Pacer Test with descriptive research to determine the level of fitness of student athletes from the Garuda Wushu Melati Putih Palembang club. Based on observations during the research, there were several Wushu athletes at the Garuda Melati Putih Palembang club who were not fit enough, so that when taking the test the athletes had difficulty carrying out these movements. Obtained from 29 Wushu athletes from the Garuda Melati Putih Palembang club, 25 athletes were in the very good category (86,2%), 2 athletes were in the fair category (0,68%), 1 athlete was in the poor category (0,3%), and the remaining 0 athletes (0%). It was concluded that the Indonesian Student Fitness Test of the Garuda Wushu Melati Putih Palembang club still showed very good criteria.

How to Cite

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INTRODUCTION

Sport is a systematic activity to encourage building and developing physical, spiritual and social potential (Destriana, 2018). Sports are physical training activities, namely physical activities to enrich and improve abilities and basic movement skills as well as movement skills in sports branches (Bangun, 2016). In general, the definition of sport is one of a person's physical and psychological activities that is useful for maintaining and improving the quality of a person's health (Aditia, D.A., 2015). «Sport» comes from the Old French «de sport» which means «pleasure», and the oldest English meaning was found around 1300, namely «anything that is fun and entertaining for humans». The dominant focus of 19th century physical education in the USA was formal activities imported from European countries (e.g., gymnastics and regimented exercise) (Corbin, 2021). Sports is one of the main sources of entertainment, therefore there are sports supporters who are generally divided into a large number of people and can be broadcast more widely through sports broadcasts (Kuntjoro, 2020). One good physical activity to improve physical fitness is exercise (Cardoso, F.J., et al., 2023).

Physical fitness is where the physical abilities of individuals and groups in various daily physical activities are optimal and still have reserves of strength to carry out the next activity without the slightest feeling of fatigue (Kamaluddin, 2019). Physical education is education that involves physical activity to gain physical abilities and skills. Physical education is related to affective, cognitive and psychomotor skills which are human provisions for achieving life goals (Destriana et al., 2021). Physical fitness is one of the most important elements in improving athlete performance, because athletes who have good physical fitness will not experience fatigue, whether in everything they do in training or in competitions. A person's physical fitness is influenced by various factors, namely, internal and external factors. Conceptually, these factors can be viewed in a two-level structure personal characteristics and lesson factors (Chen et al., 2019). Internal factors are something that is already present in a person's body that is permanent, for example, genetics, age, gender. External factors include physical activity, environment and habits, for example smoking or consuming alcohol. These factors greatly influence the measurement of fitness level (Ramadhana, M.M.L & Prihanto, J.B., 2016).

Wushu is a martial arts sport that originates from China and is starting to develop in Indonesia (Pratama & Setyawati, 2021). Wushu literally comes from the words Wu which means knight or war, and Shu which means technique or method. Although this sport is not very popular among other pencak silat sports. However, currently Indonesia has formed an institution that oversees the sport of Wushu, namely the Indonesian Wushu Executive Board (PB) and an international level institution called the International Wushu Federation (IWUF), where Chinese Wushu experts join and summarize the uniqueness of these schools into a new sport that has standard rules. IWUF was founded to promote Wushu as the greatest sport in the world.

To achieve maximum performance, an athlete must of course have good physical fitness (Cardoso, F.J., et al., 2023). According to Suharyana (2013:3), physical fitness can be defined as a person's ability to carry out daily life without causing excessive fatigue and still having the ability to do other light work. Physical fitness has two factors, namely internal factors and external factors. Internal factors are things that already exist in the human body that are permanent, such as gender, age, genetics. External factors are physical activity, environment and habits such as smoking or consuming alcoholic drinks and so on (Ramadhana, M.M.L & Prihanto, J.B., 2016). Sports activities greatly influence a person's physical fitness, moreover these activities provide a direct contribution to the physical fitness component and an athlete's physical fitness is an important aspect that can increase mobility in achieving maximum non-academic achievements (Pranata, Dedy & Kumaat, N.A., 2022).

Based on observations during training at Jakabaring Sport City (JSC) carried out on Wushu athletes from the Garuda Melati Putih Palembang club, it was seen that many athletes did not perform optimal movements due to busy school activities, causing athletes to tire quickly during individual and team training. Training programs that lack variety and physical fitness tests that have never been carried out after the Covid 19 pandemic that hit Indonesia was first detected on March 02, 2022 have had a huge impact on athletes physical fitness, due to the many obstacles felt by athletes, especially wushu athletes. This is due to limited training hours which also has an impact on Wushu athletes because many matches have been postponed and training hours have been reduced (Kidokoro et

al., 2023). To determine the physical fitness of Wushu athletes from the Garuda Melati Putih Palembang club, it is necessary to carry out the Indonesian Student Fitness Test, in the form of a Body Mass Index (BMI) test, v sit reach test, 60 second sit up test, 30 second squat push test and pioneer test. test.

According to Fajaryanto et al., (2022), in their research entitled Results of the Implementation of Indonesian Student Fitness Test among Students at elementary school 1 Rejomulyo, Kras District, Kediri Regency, they used quantitative descriptive research with a percentage descriptive method. One of the variables in this research is the Indonesian Student Fitness Test. The sample in this study used 30 students of elementary school 1 Rejomulyo, Kras District, Kediri Regency. Based on the research results, it was concluded that the BMI in the good nutrition category was 57%, but this was not supported by sufficient physical fitness. The similarity with the research carried out this time is that they both conducted research on physical fitness. However, there are differences in the research objects. Physical fitness at the Garuda Melati Putih Palembang club after the Covid 19 pandemic has never been tested so the physical fitness of Wushu athletes is not yet known. So now research has been carried out with the title Physical Fitness of Wushu Athletes.

METHOD

This research is a descriptive research. This research is classified as descriptive research which aims to reveal the physical fitness profile of Wushu athletes at the Garuda Melati Putih Palembang club as it really is (Linarwati, M. et al., 2016). According to Sugioyono (2010:61), he believes that a research variable is an attribute or trait or value of a person, object or activity that has certain variations determined by the researcher to be studied and then conclusions drawn. In descriptive research, the researcher does not carry out manipulation actions or provide certain treatments to variables or design something that is expected to happen to the variables. However, all activities, circumstances, events, aspects, components or variables proceed as they are (Rusandi & Muhammad Rusli, 2021).

The data collection techniques consist of Observation, Tests and Questionnaires. According to Sukmadinata (2010:220), he believes that observation is a technique or way of collecting data by making observations of ongoing activities. This observation was carried out to syste-

matically collect data about athletes' activities in carrying out learning activities. A questionnaire or questionnaire is a data collection technique that is carried out by giving a set of questions or written statements to respondents to answer (Widoyoko, 2016:33). To save time and energy, the data collection technique in this research used Google forms and the questionnaire source used was Indonesian Student Fitness Test which was created by the Assistant Deputy for Educational Sports Management, Deputy for Sports Cultivation, Ministry of Youth and Sports of the Republic of Indonesia in 2022.

The research instrument used in the research is the Indonesian Student Fitness Test instrument prepared by a team of sports academics from universities in Indonesia and directly supervised by the Assistant Deputy for Educational Sports Management of the Indonesian Ministry of Youth and Sports. Indonesian Student Fitness Test consists of four test items, namely v sit and reach, 60 second sit up, 30 second squat thrust, and pacer test.

A sample is a part of an entire population that has certain characteristics or is a subject from a population selected in a certain way to represent the entire population. In this study the sample consisted of 29 Wushu athletes at the Garuda Melati Putih Palembang Club. The sample was taken using total sampling techniques. Total sampling technique is a sampling method in which all members of the population are used as samples (Amin et al., 2023).

RESULTS AND DISCUSSION

This research is classified as descriptive research which aims to reveal the fitness profile of Wushu athletes at the Garuda Melati Putih Palembang club. The research was conducted at Jakabaring Sport City (JSC), Palembang City, South Sumatra Province, with 2 coaches and 29 athletes, 14 male athletes and 15 female athletes. The research was carried out face to face, where before carrying out all the tests, each athlete was first explained the procedure for filling out the questionnaire. Then questionnaires were distributed and filled in by the athletes.

All forms of tests are carried out in accordance with the research instruments. In this study, the variable used was the physical fitness profile of Wushu athletes from the Garuda Melati Putih Palembang club. Meanwhile, the research instrument used the Indonesian Student Fitness Test instrument which was prepared by a team of sports academics from universities in Indonesia

and supervised directly by the Assistant Deputy for Educational Sports Management of the Ministry of Youth and Sports of the Republic of Indonesia. The Indonesian Student Fitness Test consists of a Body Mass Index (BMI) test, V sit reach test, 60 second sit up test, 30 second squat push test, pacer test. The sampling technique uses purposive sampling by carrying out measurement tests using the Indonesian Student Fitness Test, as well as distributing motivational questionnaires via Google Form which is distributed via the Whatsapp application. Descriptive analysis of athlete motivation data was taken through distributing questionnaires, totaling 20 questions with statements using a Likert scale with 5 (five) answer choices, namely very happy (SS), happy (S), so-so (BS), not happy (TS), Very not happy (STS). Next, all data was analyzed descriptively with frequency tabulation.

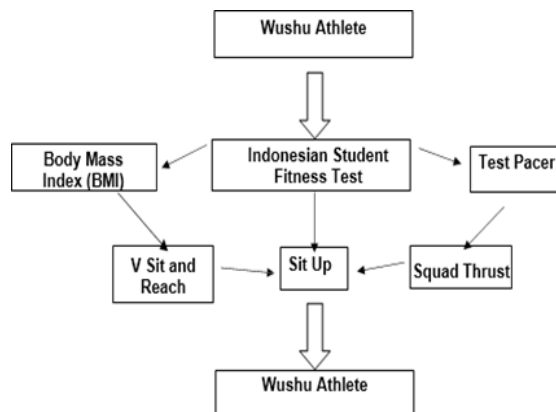


Figure 1. Flowchart Framework of Thinking

Description of research data is carried out sequentially according to the test sequence and research objectives. All data is explained descriptively with frequency tabulation.

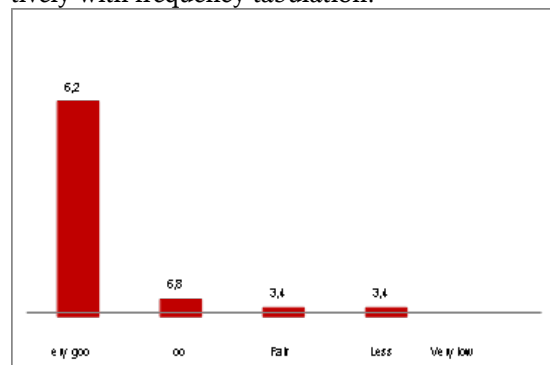


Figure 2. V Sit And Reach Test Histogram Data

Based on the **Figure 2**, under the sit and reach of Garuda Melati Putih Palembang athletes, it is known that 25 students in the very good category (86,2%), good 2 athletes (06,8%), fair 1

athlete (03,4%), less than 1 athlete (03,4%) and very low 0 athletes (0%).

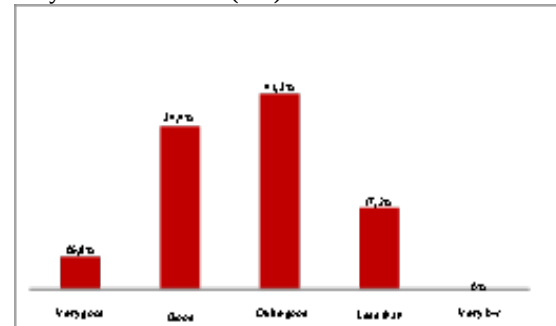


Figure 3. Sit Up Test Histogram Data

Based on the **Figure 3**, the sit ups of the Garuda Melati Putih Palembang athletes above show that there are 2 athletes in the very good category (06,8%), 10 athletes in the good category (34,4%), and 12 athletes in the quite good category (41,3%), less than 5 athletes (17,2%), and very low 0 athletes (0%).

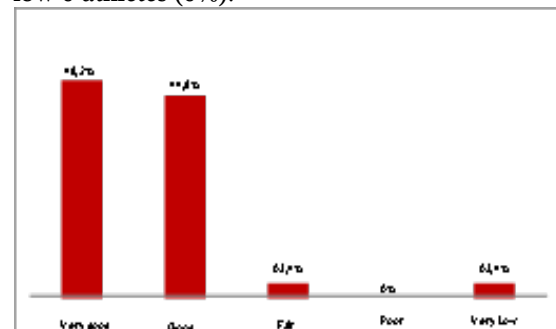


Figure 4. Squad Thrust Test Histogram Data

Based on the **Figure 4**, below the squad thrust of Garuda Melati Putih Palembang athletes, it is known that 14 athletes (48,2%) are in the very good category, 13 athletes (44,8%) are good, 1 athlete (03,4%) is fair, poor 0 athletes (0%) and very low 1 athlete (03,4%).

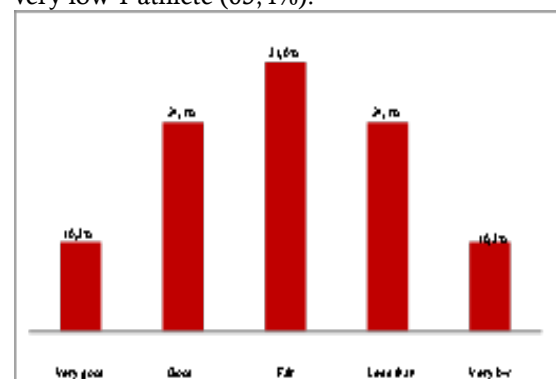


Figure 5. Pacer Test Histogram Data

Based on the **Figure 5**, under the pacer athlete Garuda Melati Putih Palembang, it is known

wn that students in the very good category are 3 athletes (10,3%), good 7 athletes (24,1%), fair 9 athletes (31,0%), less than 7 athletes (24,1%) and very low 3 athletes (10,3%).

Based on the data obtained, it is known that the physical fitness of the Garuda Melati Putih Palembang Wushu Club athletes is in the very good category. This is known from the results of fitness tests which show dominating criteria, such as the results of the athlete v sit and reach test, where 25 athletes (86,2%) obtained the very good category, 2 athletes (06,8%) in the good category, less than 1 athlete (03,4%), and very low 0 athletes (0%). So from the results of the v sit and reach test it was found that 86,2% of the 29 research samples were in the very good category. When performing various activities, a person needs to increase flexibility to protect the body from various types of injuries (Indah, D. et al., 2022).

Flexibility is an important component in every individuals physical activity in creating various inflexible and stiff movements (Irfan et al., 2008). So that a person will experience a physical condition that can be developed into more efficient and effective movements. One component that every person has is flexibility, where flexibility means movements that are not too stiff, flexible and smooth. So that physical condition can be achieved by having movements that support skills and mastery in the field of sports (Wicaksono et al., 2022). Flexibility is very beneficial for a person's life, this is because flexibility has a very important role in helping a person become more skilled in processing the body by training to develop the flexibility of the abdominal, back and waist muscles simultaneously. It is emphasized that the most distinguishing feature of an experienced and successful athlete is the ability to train the amount of relaxation with the ability to contract and relax their muscles quickly. So someone who has optimal flexibility and is good at processing body movements easily (Unalmis & Muniroglu, 2023). Mastery of skills in sports is better than those who have less than optimal flexibility and good movement (Wicaksono et al., 2022). Having body flexibility will make the muscles looser and less tense. With such muscle conditions, athletes can perform many sports movements very well (Unalmis & Muniroglu, 2023). Other physical fitness components pertaining to muscular strength, muscular endurance and flexibility were assessed following exercise testing guidelines (Chang et al., 2017). Apart from that, before the athlete warms up optimally, the athlete can first do the knee kiss exercise while sitting on

the floor. This exercise aims to train the flexibility of the back muscles, the Kayang exercise. Kayang exercises aim to train the flexibility of the back muscles, Kayang exercises, Kayang exercises aim to train the flexibility of the abdominal, back and waist muscles (Serin et al., 2017). Then you can also do split exercises, this exercise stretches both legs so that they form a straight line. Splits can train the flexibility of the groin muscles (Azandi et al., 2021).

The next test results were the results of the sit up test where the Sit Up Test of athletes found in the very good category was 2 athletes (06,8%), good 10 athletes (34,4%), fair 12 athletes

(41,3%), less than 5 athletes (17,2%) and very low 0 athletes (0%). So from the results of the sit up test, it was found that 41,3% of the 29 research samples were in the sufficient category. Sit ups are an aerobic exercise. Sit ups are not only for abdominal muscle strength training but can also reduce body fat and increase lean muscle mass. Doing sit ups can reduce fat in the stomach area (Walukow et al., 2021). Sit ups are a type of exercise that trains various muscles. Not only the abdominal muscles, but also the chest, pelvis, lower waist and neck muscles. This sit up exercise helps train the strength of these muscles, so that they become tighter, however there are still many obstacles encountered in doing sit ups during the test. Referring to the results of the questionnaire that has been distributed, there are athletes who are still lacking in doing sit up tests where the results shows there is 17 people 58,5%, out of 29 athletes, still had difficulty doing the sit up test because they were not enough and used to doing this movement. It is best to add more weight to each exercise than usual and use weights.

This research was continued by doing Squat Thrust. Based on the results of the Squat Thrust test, 14 athletes (48,2%) were in the very good category, 13 athletes (44,8%), good 1 athlete (03,4%), poor 0 athletes (0%) and very low 1 athlete (03,4%). However, based on the results of the questionnaire that was distributed, it was found that (93%) of the athletes had made their best efforts during the test and were serious about carrying out the test and also the results of the questionnaire showed that as many as (93%) of the athletes were enthusiastic about taking this test. So, from the results of the Squat Thrust 14 test, it was found that (48,2%) of the 29 research samples were in the very good category. The squat thrust is carried out for 30 seconds, as much as can be done with the aim of measuring speed, power, agility and coordination. Squat thrust is a sport to train muscle strength and endurance of

the leg muscles, especially the muscles in the feet. People who do squat thrusts will get an ideal and even athletic body shape. Apart from that, squat thrusts can also speed up the burning of fat in the body (Kurniawan et al., 2020). By doing squat thrusts regularly, athletes will train their movement speed and strength of the leg muscles found in the feet. Next, the test results are the results of the pacer test.

The pacer test is a development to test a person's cardiovascular response to aerobic activity. This test is very useful for measuring the fitness level of athletes playing sports such as rugby, football, handball, hockey, tennis, and so on, as well as for measuring the fitness of students and students. This test is also used by most international sports teams to measure cardiovascular fitness, this test is one of the very important components of fitness (Pramata, 2016). Where the test results obtained for wushu athletes at the Garuda Melati Putih Palembang club were in the very good category 3 athletes (10,3%), good, 7 athletes (24,1%), fair, 9 athletes (31,0%), less than 7 athletes (24,1%) and very low 3 athletes (10,3%). So, the results of the pacer test showed that (65,4%) of the 29 research samples were in the good category. However, referring to the results of the fitness test questionnaire, it was found that (96,5%) of the athletes had done their best and were serious about taking this test. This can be seen from the results of the pacer test on students who are dominated in the good category, there are 27 people with a percentage of (96,5%) because referring to the results of the questionnaire that has been distributed to students, there are results of 2 people with a percentage of (3,5%). The length of time athletes carry out training activities is only 2 hours, this has a very significant impact on the results of the pacer test which dominates in the fair category. Therefore, it is necessary to continue to increase the physical training load in order to improve the physical fitness of Wushu athletes at the Garuda Melati Putih Palembang club.

Wushu coaches at the Garuda Melati Putih Palembang Club should not only focus on delivering technical material. However, we also pay attention to the physical fitness conditions of the Wushu athletes at the Garuda Melati Putih Palembang Club which are already in the good category and must be further improved, both in terms of speed, agility, leg muscle strength, abdominal muscle strength, and endurance. Good physical fitness is an important aspect that every athlete must have in all sports, especially Wushu. Maximum performance can be achieved if an athlete has good physical fitness. Physical fitness

is a very important element in the sport of wushu. Therefore, physical fitness must be in prime condition so that athletes can achieve maximum performance and physical fitness is the main component that athletes must have so that athletes can achieve achievements.

Good physical fitness is an important aspect that every athlete must have in all sports, especially pencak silat (Safitri, Ati., et al., 2021). Maximum performance can be achieved if an athlete has good physical fitness. Physical fitness is a very important element in pencak silat sports. Therefore, physical fitness must be in prime condition so that athletes can achieve maximum performance and physical fitness is the main component that athletes must have so that athletes can achieve achievements (Hardiansyah & Syampurma, 2017).

Physical fitness is a state of physical ability that can adapt the function of the body's organs to certain physical tasks and or environmental conditions that must be overcome in an efficient manner, without excessive fatigue and has fully recovered before the same task comes (Destriana et al., 2021). An athlete will not be able to achieve maximum performance if he has poor physical fitness. It can be seen that physical fitness is one of the factors that supports the success of athletes in achieving maximum performance (Kurnia, D.I., et al., 2020). Even though in reality there are still athletes in the field who have good physical fitness, they do not necessarily get maximum performance, and vice versa. It is hoped that with a good level of physical fitness, athletes can improve their performance when running a competition so that they get maximum results. If the athletes physical fitness is lacking, then in this case the athletes performance will not be optimal and will not last long in a competition, the athlete will experience excessive fatigue so that he will have difficulty thinking when competing, will easily be thrown down, easily give up, and other things (Puspodari, 2022). Another thing that causes the athlete to experience defeat when competing. Therefore, physical fitness is something that needs to be improved.

When training for a long time, replacing fluids in the body with just water is not enough, because water does not replace electrolyte fluids lost with sweat, so as an athlete you must be able to keep your body hydrated so that it does not affect the athletes performance or achievement (Penggali, M.H.S.T et al., 2016). So an athlete must maintain their eating and drinking patterns because that is the main thing in the needs of an athlete or sportsman.

CONCLUSION

Based on the results described in the research results and discussion above, it can be concluded that the physical fitness profile of Wushu athletes from the Garuda Melati Putih Palembang club in the results of the Indonesian Student Fitness Test (TKPN) as a whole falls within the criteria, namely dominating Very Good. This is proven by the items taken from the Wushu Athlete data of the Garuda Melati Putih Palembang Club, namely 29 athletes, the results obtained in the very good category were 25 athletes (86,2%), good 2 athletes (06,8%), fair 1 athlete (03,4%), less than 1 athlete (03,4%), very less than 0 people (0%). Meanwhile, in some test questions, there are athletes who have very perfect abilities and there are also those who are in the good category. However, there are also some athletes whose condition is not good so that when taking the test the athletes have difficulty carrying out movements perfectly. So this did not affect the results of the athlete's physical fitness profile, which concluded that the physical fitness of Wushu athletes from the Garuda Melati Putih Palembang club was in the very good category.

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