

## **HEALTHY LIFESTYLE AND PHYSICAL FITNESS VOLLEYBALL ATHLETE TEAM MUHAMAMDIYAH UNIVERSITY JAKARTA**

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### **ABSTRACT**

This study aims to determine the lifestyle, physical fitness and concentration of volleyball players at Muhammadiyah University Jakarta. The descriptive research method used a sample of 14 athletes who played on the UMJ volleyball team, collecting data on physical fitness and lifestyle using a questionnaire. The research instruments were the Multistage Fitness Test and a lifestyle questionnaire. The results of this study, physical fitness was recorded as many as 8 athletes in the 'Baik' category, 4 athletes in the 'Moderate' category and 2 athletes in the 'Less' category. Concentration data of 6 athletes in the 'less' category, 6 athletes in the 'Less' category, 2 athletes in the 'Enough' category. The lifestyle of the players consumes 3 meals. Food before the game 14 athletes consume bananas and bread, 2 athletes eat pizza and burgers, while the food after the game is pizza and burgers, rice, chicken. The average fluid consumption reaches 11 glasses of mineral water. Habit of drinking alcohol 14 athletes never drink. Smoking 14 athletes do not smoke. Rest 8 hours per day. Gainer and multivitamin supplements are consumed for vitamin C. Conclusion: Players on the University of Muhammadiyah Jakarta volleyball team have the fitness of 8 athletes in the 'Good' category, 4 athletes in the 'Enough' category and 2 athletes in the 'Less' category. Concentration of 6 athletes in the 'Less' category, 6 athletes in the 'Less' category and 2 athletes in the 'Enough' category. The lifestyle of most athletes is still not controlled by sufficient calories.

**Keywords:** Lifestyle, physical fitness, volleyball.

### **INTRODUCTION**

In order to have a healthy and strong body and avoid disease, one of the efforts made is to adopt a healthy lifestyle. But in reality now many do not pay attention to the nutrition in the food they eat. This results in the body's ability to store excess food by storing food substances in the form of fat. Excessive fat in the body will certainly hinder people from doing physical activity.

A healthy lifestyle is a lifestyle that focuses on physical and spiritual healthy behavior activities. A healthy lifestyle is a style that pays attention to the determinants of health, including food according to nutritional needs and exercise according to the portion of exercise (Suryanto, 2011: 3). In this modern era, the demand for efficiency in daily life results in lifestyles that deviate from a healthy lifestyle, including eating patterns (junk food), smoking, resting (staying up late), drinking alcohol (alcohol).

This deviant behavior is carried out by adults or similarly with students who follow today's trends. One of the physical fitness can be seen from cardiorespiratory endurance, muscle strength, muscle endurance, flexibility, good body position which includes a balanced nutritional intake. A good lifestyle will make the body healthy and strong so that it can carry out activities that require good endurance. But if all that is not done then health will be disturbed and susceptible to disease.

To form a good volleyball team, athletes must have a lifestyle and good physical abilities, therefore athletes will have the skills needed to become good athletes. The University of Muhammadiyah Jakarta volleyball team is inhabited by students and is preoccupied with

lectures and well-programmed volleyball training. This is in line with Physical Fitness which is an individual's ability to be able to carry out daily work efficiently without excessive fatigue so that they can still enjoy their free time (Djoko Pekik Irianto: 2000).

This research is a descriptive study with a sample of 14 female athletes from the University of Muhammadiyah Jakarta volleyball team. The data collection technique for physical fitness uses a test while for lifestyle uses a questionnaire. Multistage fitness test to measure players' physical fitness as well as lifestyle questionnaires covering diet, food and fluid intake, rest, smoking and drinking alcohol.

## **THEORITICAL REVIEW**

According to Joko Pekik (2000, 6) as explained above, to get adequate freshness it is necessary to understand a healthy lifestyle, namely: (1) diet, (2) rest periods, (3) exercise. Taking into account the description above, a healthy lifestyle has a very important role to improve and maintain one's physical fitness. A healthy lifestyle consisting of eating, resting and exercising, if carried out in accordance with predetermined rules, a person's level of physical fitness is likely to be in good condition. Eating in question is food that has sufficient quality and quantity and is hygienic. In addition to eating habits, a variety of foods and drinks are sufficient for health. Adequate rest time is necessary for power recovery. With enough rest time the body will stay healthy and fit. Besides eating and resting, exercise is also necessary, because regular exercise can affect one's physical fitness.

Research conducted by Karina Arvianti (2009) entitled *The Relationship between Knowledge and Attitudes with a Healthy Lifestyle for Undergraduate Students Specializing in Health Promotion, Faculty of Public Health, University of Indonesia*. This type of research is quantitative research with a survey (non-experimental) research design. Data were collected cross-sectionally, because the measurement of the independent variable and the dependent variable was carried out simultaneously. The population of this study was all students specializing in health promotion class of 2005-2008, Faculty of Society, University of Indonesia, totaling 96 people. Research data obtained by collecting data from all students. Data was obtained by means of researchers contacting students one by one to make a schedule for filling out the questionnaire.

Research conducted by Sutri (2014) entitled *The Relationship between Physical Activity and Adolescent Physical Fitness During Fasting*. The research method is an observational design with cross sectional. Physical activity was assessed using the PAQ-A where respondents filled out a questionnaire based on physical activity carried out during the last 7 days, while physical fitness was measured using the TKJI. The research population was teenagers in the village of Kalisari Randublatung Blora. A total of 70 adolescents who met the inclusion criteria. The results of the study: the Chi Square test showed  $p = 0.179$  results  $> 0$ , which means that there is no relationship between physical activity and physical fitness in fasting adolescents. In conclusion, the physical activity of fasting adolescents has nothing to do with their physical fitness.

## **RESEARCH METHODS**

### **Physical fitness**

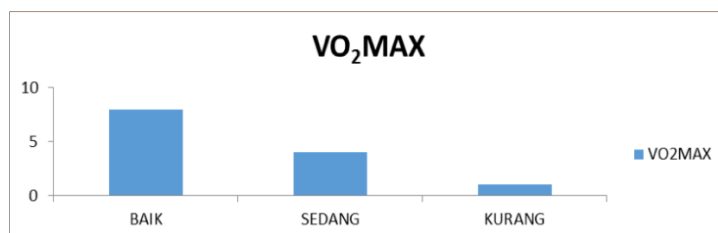


Figure 1: Physical test results

From the results of the physical fitness test in Figure 1 using the Multistage Fitness Test UMJ volleyball team players who took the test, it was recorded that 8 athletes were in the 'Good' category, 4 athletes were in the 'Medium' category and 2 athletes were in the 'Less' category. Of the total 14 players, 50% have never done a fitness test with the Multistage Fitness Test because the players who haven't done the test are new athletes.

### **Lifestyle**

#### **Consumption of meals and snacks**

The average daily frequency of meals for athletes is 3 times, namely: morning, afternoon and evening with a menu that is sober and completely monotonous because it is provided by helpers in the dormitory, so that the portion for each player varies because players don't always eat in the dormitory. There were 12 athletes who consumed bananas and bread as the main choice for athletes before competing. However, it was also found that there were 2 athletes who consumed other types of food which were considered to provide a lot of energy and make them fuller, such as pizza and burgers. While the food after the competition athletes consume food tends to be more diverse than before competing. Athletes prefer foods with high carbohydrate intake such as rice, chicken, pizza and burgers.

Most athletes like to consume snacks in the form of snacks such as biscuits, peanut chips, and chocolate without any time limit on their consumption. Snacks are often referred to as a snack between meals between breakfast and lunch around 10.00 and lunch and dinner around 15.00 (Pujianto, 2011). These types of snacks are not classified as healthy snacks because in general these snacks only give a pleasant taste sensation on the tongue, regardless of the nutritional content and the amount of calories the choice of type of snack will also affect the increase in blood sugar levels (Glycemic Index).

Biscuits, potato chips, nuts and chocolate are types of food with a high Glycemic Index. Chocolate, for example, contains simple carbohydrates which are more easily absorbed by the body when compared to the complex carbohydrates found in cereals, so that blood sugar levels can increase drastically (Pujianto, 2011). Most athletes do not include healthy snacks as part of their daily meal plan. Some athletes only include 1 of the 2 available snack intervals with a choice of food types including fruit (whole/not juiced), chocolate, even mixed with muscle juice. Fruit that is not crushed or juiced is the right choice because it has a low Glycemic Index value, supported by intact fiber content. Fruit that has been juiced or made in the form of a drink has a high Glycemic Index content which takes longer to digest and contains little fiber (Pujianto, 2011).

#### **Consume fluids**

The average athlete's daily fluid requirement is around 2,500 ml or about 11 glasses of mineral water. This fluid requirement is considered sufficient for athletes to maintain hydration status. However, this number will increase when athletes carry out routine activities, both competing and during matches. The lowest amount of daily mineral water intake from respondents was 5 glasses (equivalent to 1.2 liters) and the highest was 20 glasses (equivalent to 4.8 liters). The amount of 2,500 ml is equivalent to the amount of fluid excreted by the body either through sweat, urine or together with feces (Arsani et al., 2014). Regarding coffee consumption, athletes generally rarely consume coffee regularly. Only 1 athlete was found who likes to consume 1 cup of coffee every day, the rest of the athletes consume at least 1 cup of coffee in 1 week.

As much as 1 cup of coffee or about 150 ml of brewed coffee contains around 100-150 mg of caffeine, while in the form of instant coffee drinks it contains around 40-110 mg of caffeine. Consumption of coffee with caffeine content reaching levels of 80 mg alone in the long term has the opportunity to cause heart disease, high blood pressure, kidney disease, and

diabetes. In addition, excessive coffee consumption can cause athletes to experience insomnia effects, causing the body to tremble, delirium, ringing in the ears, palpitations, and a feeling of always wanting to urinate (diuretic effect) (Pujiyanto, 2011).

For athletes, coffee consumption can increase stamina during practice or during matches. Pujiyanto (2011) states that the results of research from a runner in the 1980s who consumed 2 cups of coffee containing around 300 mg of caffeine 1 hour before competing were able to last about 15 minutes longer than other runners who did not consume caffeine. However, it should be a concern for athletes not to consume caffeine before competing because health checks on athletes before competing with a caffeine content of 12 µg per ml of urine cause these athletes to be disqualified from the competition. In addition to coffee, athletes sometimes also drink sweet tea, the average player drinks 1-2 glasses of tea every day, only 1 player only drinks tea once a week. Habit of drinking alcohol of the 14 athletes who have never drank alcohol because they think there is no benefit. Please note that alcohol contains Habits of alcohol consumption can reduce the function of the small intestine to absorb nutrients, the function of the pancreas and bile will work very hard and end in damage to the function of these organs. According to Smokeout (2000) various studies have also shown that the habit of drinking alcohol also has a negative effect on the risk of obesity, heart disease, cancer and various other diseases which will certainly worsen the performance of athletes. Smoking Habit

The habit of smoking is considered a bad thing for athletes, there are 11 players who are recorded as not smoking and 1 who has quit, while there are 2 athletes who are in the process of quitting smoking. From the data, all athletes agree not to smoke and avoid the habit. Pujiyanto (2011) stated that in cigarettes there are various substances that are negative for the health of the body, such as nicotine which can cause dependence and pharmacological effects in the form of stimulants and tranquilizers. The need for rest and activity

Athletes sleep an average of 8 hours per day. In addition to routine basketball training for an average of 3 hours per day for 6 days a week, the athletes also carry out other physical activities outside of the training schedule. Athletes choose fitness to maintain their own fitness, besides that there are also other activities chosen, namely cardio, swimming, futsal and badminton. The amount of time required for physical activity outside of routine basketball training is an average of 1.5 hours per day. Lectures on campus are on average 2 hours, but not all players have the same activities as campuses because there are some players who just have to finish their thesis.

### **Supplements and Multivitamins**

Most athletes use supplements in the form of vitamins, multivitamins, and protein milk to support physical performance, training, and competition. The types of vitamins consumed are generally vitamin C from vitamin products that are commonly found in the market, while the types of multivitamins consumed are in the form of glucosamine and multivitamin products which also contain a type of vitamin C. For protein purposes, some athletes use pure protein milk supplements, either gainer with assuming the availability of protein reaches around 50 grams in 1 serving (approximately 150 grams taking in 1 scoop of product) and pure protein from beef extract assuming the availability of protein reaches around 20 grams in 1 serving (around 30 grams taking in 1 scoop of product). Athletes find it very important to take supplements as part of their routine. Apart from the tight training schedule, most athletes also have other activities, namely studying. In order to maintain vitality and endurance, apart from consuming vegetables and fruit, athletes also feel it is important to consume vitamins or multivitamins. Consumption of protein is also considered important to meet protein needs for the body and make physical performance better.

In principle, the need for vitamins and minerals can be fulfilled from food sources consumed daily by athletes. Although vitamins and minerals can be obtained from supplements

that are widely available in the market, the best sources of vitamins and minerals are still obtained from daily food. A variety of foods such as grains, cereals, fish, chicken, meat, milk, eggs, fresh vegetables and fresh fruits are considered sufficient to meet the body's needs for vitamins and minerals (Pujianto, 2011).

Consumption of vitamins and multivitamins that contain vitamin C is good for athletes. Vitamin C is useful for the body as an antioxidant, able to increase iron absorption, plays a role in the formation of collagen tissue in bones and teeth, lowers high blood pressure, and is able to neutralize toxins. These types of vitamins only act as a complement and are not basic needs that need to be consumed regularly every day. For healthy athletes, the body only needs about 60-100 mg of vitamin C per day, other sources state that the maximum requirement of vitamin C is 280 mg.

Athletes need to get a special understanding regarding the correct consumption of vitamins or multivitamins because excess consumption can cause disturbances in the stomach and intestine organs, thus potentially causing diarrhea. Adequate consumption of mineral water will help the body to reduce the potential for kidney stones to occur due to excess consumption of vitamin C. Vitamin C, which dissolves easily in water, breaks down into oxalate in the body and precipitates in the kidneys to form kidney stones. Therefore athletes are strongly advised to consume as much mineral water as possible according to their capacity to be able to consume mineral water so that excess vitamin C can be excreted from the body through urine (Pujianto, 2011).

## **CONCLUSIONS**

From this study, during the preparation period for the competition for physical fitness of volleyball athletes, 8 athletes were in 'good' physical fitness, 4 athletes had "moderate" fitness and 2 athletes had "poor" physical fitness. which can equalize the physical fitness level of the players so that all players can be of the same physical fitness.

The athlete's concentration level is still low, as evidenced by the 12 athletes who fall into the category of 'Not very much' and 'Not enough', while only 2 athletes fall into the 'Enough' category. From the results of this concentration data, it is for the record for the coach, don't forget to always provide training to increase the concentration of the players, while players must always practice concentration with various kinds of games that focus on concentration.

The lifestyle of most athletes is that most athletes still have not controlled their calorie adequacy, so they don't overdo it and don't experience deficiencies. For teams, please pay attention to the arrangement of the athlete's diet so that athletes can be controlled about food and nutritional fullness. In addition to the bad habit of consuming snacks, you must pay attention to the time and type of snacks so that excess calories are not consumed.

## **SUGGESTION**

Suggestions for athletes to understand athlete nutrition because good athlete nutrition will support athlete achievement besides that for the coaching team to focus on managing athlete nutrition, increasing athlete fitness and focusing on increasing athlete concentration so that when the competition starts the team's performance will increase.

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