

KNOWLEDGE, NUTRITIONAL STATUS AND DIET AS FITNESS OF FACTORS FOR DAVID FC FOOTBALL ATHLETES

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ABSTRACT

Soccer is a popular sport that requires optimal physical fitness, including nutritional knowledge, nutritional status, and proper diet. This study focuses on analyzing the profile of nutritional knowledge, nutritional status, and diet on the physical fitness of David FC soccer athletes. The method used was descriptive qualitative with a population of soccer athletes at David FC, using a semi-structured interview approach as well as anthropometric data. The results revealed that the majority of athletes had moderate nutritional knowledge, with normal nutritional status based on IMT/U. The analyzed diet showed an imbalance in macro and micro nutrient intake. The relationship between good nutritional knowledge and physical fitness status was found to be significant, especially in improving athletes' endurance and performance. The study's conclusions emphasize the importance of more in-depth nutrition education and structured dietary management to support the fitness and performance of soccer athletes. The findings are expected to contribute to the development of more effective athlete nutrition programs.

Keywords: Soccer, Physical Fitness, Nutritional Status, Diet, Nutritional Knowledge

Introduction

Soccer is the most popular sport globally. Fans come from all walks of life, from children to adults. To get an idea of soccer's popularity, in 1994, more than 2 billion eyes were on the World Cup match where Brazil defeated Italy. This exceeded the 750 million people who watched the 1993 NFL Super Bowl, the 350 million who watched the Wimbledon tennis final, and the 490 million who watched the first moon landing (Indrajaya, 2015).

The development of football in Indonesia has been fostered by the Indonesian Football Organization (PSSI) for a long time, but no positive results have been achieved. A factor that must be considered in this case is the effort to fulfill the nutritional needs of soccer players in order to improve performance. Soccer training requires the use and implementation of the latest soccer insights and technology. One of the elements of science and technology to achieve high achievement in soccer is the use and application of correct and professional sports nutrition as a supporting element (Departemen Kesehatan, 2002).

Playing soccer requires a lot of energy and can be equivalent to the energy or calorie requirements of a hard worker. It is a game that is played at a fast pace and over a relatively intensive period of time. Most of the movements involved include running, kicking, jumping and sprinting. Other special and prominent movements in the game of soccer are dribbling, colliding with opponents, and heading the ball. Nutritional status describes the condition of the body that is influenced by ingested food, while nutrient absorption and energy expenditure can be expressed as specific variables. You can understand your nutritional status based on

your physical condition, including height body, weight, and body fat percentage (Departemen Kesehatan, 2022).

Soccer players must have an ideal body shape, which is strong, healthy, tall, and flexible. Soccer players must have an ideal body mass index (BMI) as well as a proportional composition of muscle mass and body fat, and the percentage of body fat that meets the player's criteria. The ideal BMI is between 18.5 and 25 kg/m², and the normal body fat percentage for soccer players is between 7.5 and 18%. Thus, becoming a soccer player who has an ideal body shape and good activities requires a routine and targeted training program. Strength training to strengthen muscles, stretching to increase flexibility, aerobic exercise to strengthen physical and training techniques, and skill training. Factors that affect the nutritional status of soccer players include consumption of energy sources, protein consumption, and physical activity (Mubarok et al., 2014).

In addition to the ideal body shape needs to be seen from the physical fitness of an athlete. Physical fitness refers to a person's physical state that is healthy and fresh, able to adapt well without experiencing signs of fatigue and still has the energy supply to carry out sudden activities (Mubarok et al., 2014).

Physical fitness is influenced by factors such as knowledge, nutritional status, and diet (Safitri & Wirjatmadi, 2020). According to Safitri, nutritional knowledge affects physical fitness. Knowledge about nutrition is relevant to physical fitness, as nutrition plays an important role in athlete performance. Nutritional knowledge greatly influences your ability to choose quality food for consumption. Good knowledge of athlete nutrition can influence eating habits and proper nutrition to improve various components of physical fitness, namely body composition and endurance (Safitri & Wirjatmadi, 2020).

In addition to knowledge, athletes can get body shape and physical fitness and good nutritional status not only from nutritional intake alone, but also must be seen from the athlete's diet. A healthy diet refers to the consumption of foods that contain a variety of nutrients in balanced amounts according to individual needs. This means that you get a proportionate daily intake of carbohydrates, protein, fat, minerals, vitamins and water from non-synthetic ingredients (World Resources Institute Indonesia, 2023).

PSSI's efforts to improve the development of Indonesian football have not yet seen positive results. In improving the development of Indonesian football, a factor that must be considered is the fulfillment of nutrition for football players so that researchers are interested in conducting research on "Knowledge, Nutritional Status and Diet as Fitness Factors for David FC Football Athletes".

The purpose of this study is to provide a descriptive analysis of nutritional knowledge, nutritional status, and diet on the physical fitness of David FC athletes. The scope of this research is to provide an explanation, description, and regular, clear, and accurate presentation of the facts, characteristics, and relationships between the various events being studied. This research wants to provide empirical evidence about the knowledge, nutritional status, and diet as Fitness Factors for David FC football athletes.

Method

This research applies a descriptive qualitative method with a case study design. Qualitative research is one type of research whose findings are not obtained from statistical procedures with the aim of revealing in a comprehensive - contextual way by collecting natural background data through researchers as the main instrument (Majid, 2017). The population of this study were soccer athletes at David FC Palembang. This research was

conducted in September-October 2024. The location of this research is David's Main Training Ground JASDAM II FC Stadium Palembang.

Data collection techniques were carried out through in-depth interviews. The research instrument used is in the form of primary data, namely a semi-structured questionnaire, which consists of in-depth interviews, as well as tools utilized in this research in the form of devices for recording and documenting, recording devices, and so on. This semi-structured questionnaire was used during in-depth interviews with the aim of gaining in-depth insight into the knowledge, nutritional status, and diet of David FC Palembang athletes. The steps of data analysis techniques are managing and preparing data for analysis, reading all data, coding all data, carrying out the process in coding to describe informants, describing themes to be displayed, and data interpretation or data meaning.

Discussion

1. Frequency Distribution Based on Gender on David FC Tool

Table 1. Frequency Distribution Based on Gender in David FC Athletes

Gender	Frequency	Percentage
Male	20	20

Based on table 1, shows that all David FC athletes are male with a total of 15 people (100%).

2. Frequency Distribution Based on Age in David FC Tool

Table 2. Frequency Distribution Based on Age in David FC Athletes

Age	Frequency	Percentage
15 Years	4	26.7
16 Years	3	20.0
17 Years	4	26.7
18 Years	2	13.3
19 Years	2	13.3
Total	15	100.0

In table 2, it can be seen that the ages of David FC athletes are mostly 15 years old and 17 years old as many as 4 people each, then 16 years old as many as 3 people, and 16 years old as many as 3 people. The lowest were 18 years old and 19 years old with 2 people each.

3. Frequency Distribution Based on Nutritional Status in David FC Tools

Table 3. Frequency Distribution Based on Nutritional Status of David FC Athletes

Nutrition Status	Frequency	Percentage
Normal	9	60.0
More	3	20.0
Less	3	20.0
Total	15	100.0

In table 3, it can be seen that the majority of David FC athletes are in normal nutritional status with a total of 9 people. More and less nutritional status each amounted to 3 people.

4. Frequency Distribution Based on Education in David FC Athletes

Table 4. Frequency Distribution Based on Education in David FC Athletes

Education	Frequency	Percentage
High School	8	53.3
Bachelor	7	46.7
Total	15	100.0

Referring to table 4, it is known that based on the education of David FC athletes, the majority are in the high school category as many as 8 people, then for undergraduate as many as 7 people.

5. Frequency Distribution Based on Diet in David FC Athletes

Table 5. Frequency Distribution Based on Diet in David FC Athletes

Diet	Frequency	Percentage
Good	9	60.0
Less	6	40.0
Total	15	100.0

From table 5, it is known that based on diet in David FC athletes most are in the good category with a total of 9 people, while the category is less as many as 6 people.

6. Frequency Distribution Based on Knowledge of David FC Athletes

Table 6. Frequency Distribution Based on Knowledge of David FC Athletes

Knowledge	Frequency	Percentage
Good	9	60.0
Less	6	40.0
Total	15	100.0

In table 6, it can be seen that based on the knowledge of David FC athletes who are in the good category, there are 9 people while the category is lacking in 6 people.

7. Distribution Frequency Based on Fitness Level in David FC Athletes

Table 7. Frequency Distribution Based on Fitness Level in David FC Athletes

Correctness Level	Frequency	Percentage
Good	8	53.3
Simply	3	20.0
Less	4	26.7
Total	15	100.0

From table 7, it is known that based on the physical fitness level of David FC athletes, 9 people are classified in the good category, then 4 people are classified in the less category, and 3 people are in the sufficient category.

The results showed that David FC athletes were all male. This is supported by Sudiana, gender is also one of the factors that affect the level of physical fitness in athletes. Before experiencing puberty, men and women have physical fitness, especially heart-lung endurance (VO2Max) the same or no difference but when experiencing puberty in women have physical fitness about 25-30% lower (Sudiana, 2014). In addition, men have activity, energy, muscle mass, muscle strength and muscle strength. higher speed than women (Parmar, 2015).

The results showed that based on age, David FC athletes were mostly 15 years old and 17 years old as many as 4 people (26.7%), 16 years as many as 3 people (20.0%), while the least age is 18 years and 19 years as many as 2 people (13.3%). Age is one of the factors that affect the level of physical fitness in athletes. Research in the Netherlands states that adolescent boys aged 18-20 years and girls aged 16-17 years have increased heart-lung endurance (VO2Max) and muscle mass. Meanwhile, research in America states that in adolescents aged 12-18 years there is an increase in heart-lung endurance (VO2Max) (Sudiana, 2014).

The results showed that based on the nutritional status of David FC athletes, most were in the normal category as many as 9 people (60.0%), more and less as many as 3 people (20.0%). This is in line with Ismanto's research that 83.3% of Jaya Raya Jakarta badminton athletes have normal nutritional status (Ismanto et al., 2017). Then in Sudiana's research stated that 90.91% of DKI Jakarta PPOP soccer athletes have normal nutritional status (Sudiana, 2014).

The results showed that based on education in David FC athletes, the most in the high school category were 8 people (53.3%) and the least in the undergraduate category were 7 people (46.7%). Knowledge of the level of education and nutrition plays an important role in the quality of nutrition (Nurjanah & Nurhayati, 2022). Nutrition education is one way to change nutritional knowledge and attitudes, especially in athletes (Wijaya et al., 2021). This shows that the level of community education is still relatively low. Nutritional status can be used as a measuring tool to determine the suitability of a diet. Overweight and obesity are rapidly increasing public health threats in more countries (Nurjanah & Nurhayati, 2022).

The results showed that based on diet in David FC athletes, most were in the good category as many as 9 people (60.0%), less there were 6 people (40.0%). A good diet for the body is to fulfill the substances needed by the body. Especially for athletes whose activities are high with a good and regular diet, nutrition becomes balanced, the body condition will be ideal and the physical condition will be strong, thus affecting the fitness of a person (Muharam, 2019).

The results showed that based on knowledge in David FC athletes, most were in the good category as many as 9 people (60.0%), less as many as 6 people (40.0%). Athletes who have good nutritional knowledge can also maintain the normal functioning of their bodies by making efforts to regulate a balanced diet so that they are not deficient and not excess. To maintain the quality of athlete performance is also influenced by nutritional knowledge as the basis of reference for athletes in consuming nutritious food. Nutritional knowledge is important for athletes because it relates to the quality of their performance.

with nutritional intake that will enter the body (Permatasari et al., 2022). Nutritional knowledge for an athlete is also very necessary in achieving physical fitness to achieve, improve, and optimize the degree of health and fitness of athletes to achieve achievement (Faizal & Hadi, 2019).

The results showed that based on the level of physical fitness in David FC athletes, most were in the good category as many as 8 people (53.3%), 4 people were less (26.7%), Fair as many as 3 people (20.0%). According to the results of the physical fitness test assessment, athletes who have a low level of physical fitness can occur because when doing the physical fitness test is done during the day and the weather is so hot that athletes feel fatigue quickly which causes a low level of fitness so that the supply of O₂ to the muscles is also low and affects athlete performance (Faizal & Hadi, 2019).

Conclusion

Based on results research and discussion, there are several things that can be concluded. Good nutritional knowledge is very important to help athletes excel in training and competition because they tend to be more selective in choosing the food they consume, ensure nutrition that they consume according to their body's needs. Athletes who have an ideal nutritional status, which can be measured through their Body Mass Index (BMI) and body fat percentage, have better stamina and a lower risk of injury compared to athletes who are under or overnourished. Physical performance and fitness are directly influenced by a balanced diet that contains a proper ratio of carbohydrates, proteins, fats, vitamins and minerals. A diet that not balanced diet can lead to decreased energy and problems recovery after strenuous exercise. Cardiovascular endurance, muscle strength, flexibility and body composition are influenced by an athlete's physical fitness. Healthy fitness improves an athlete's physical ability, training effectiveness, and performance in competition.

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