

Relationship of Nutrition Knowledge Levels and Food Habits of Water Polo Athletes in Jakarta

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Abstract—The well nourished food choices depended on the nutritional knowledge's and nutrition attitudes of people. The purpose of this study was to determine the level of nutrition knowledge, eating habits, and nutritional status of Jakarta's Water Polo athletes who will participate in 20th National Sports Event (PON XX) in 2020 at Papua Province, Indonesia. The research was conducted in August-September 2018 at Jakarta Province's Water Polo Training Centre. The sample in this study was all Jakarta Province's water polo athletes registered in Decree of Jakarta Province's Indonesian National Sport Committee. The sample was determined by total sampling. Data of nutrition knowledge and eating habits were obtained through direct interviews and distributing questionnaires. Food consumption data was collected using the 24-hour recall method. The result was nutritional knowledge of Jakarta Province's water polo athletes which in the good category consist of 1 person (3,84%), which in the moderate category consist of 19 person (73,07%) and which in the poor category consist of 6 person (23,07%). Meanwhile, the eating habits of Jakarta Province's water polo athletes which in a good category consist of 23 person (88,46%), which in the moderate category consist of 3 person (11,53%), and which in the poor category was none. Based on the spearman correlation test between of nutrition knowledge and eating habits variables showed there was no significant relationship between nutrition knowledge's and eating habits of respondents (p Value = 0,875, r = 0,032). This showed that the better level of respondent's nutritional knowledge was not necessarily related to good eating habits of respondent.

Keywords: *eating habits, nutrition knowledge, water polo athletes*

I. INTRODUCTION

National Sports Event (In Indonesia called PON) was an Indonesian national sports event which basically aimed promoted sports, found potential athletes, and increased the level of health and fitness. Besides that, it improved sports achievements, maintained national unity and integrity, and increased national resilience. PON is held once every 4 years as an evaluation of the development of performance sports that are fostered in the regions.

DKI Jakarta was province that always followed the National Sports Event. One of Jakarta's sport branches that contested was water polo, which was on PON XIX in West Java the Jakarta's water polo won a gold medal for the men's

and women's teams. High sports performance needed to be continuously maintained and improved. Sports achievements only can be achieved if the supporting factors must be mixed that the optimization of abilities could be achieved as well as possible. In order to take part in PON XX in Papua Province at 2020, currently the Jakarta's Water Polo athletes have prepared themselves by doing intensive routine training.

The choice of good nutritious food depended on one's knowledge and nutritional attitude. The results of Mawaddah and Hardinsyah research that nutritional knowledge had a significant positive correlation to the practice of selecting nutritious foods that suit your needs [1]. In addition, research by Fathiyah et al. showed that students who have good nutritional knowledge tend to choose food products by considering the nutritional content stated on the food label of a branded product [2]. The habit of choosing foods that only attract the five senses without making a selection based on the nutritional content of food and often ignoring the problem of good food intake for the body could have an adverse effect on the fulfilment of nutrients for the body. The importance of nutritional knowledge in everyone especially in athletes was very necessary, because with nutritional knowledge a person could behave and behave in choosing food to meet nutritional needs. With good nutritional knowledge, it expected that athletes have the ability to choose foods to consume which have needs, types and when to eat well.

Nutrition knowledge was one of several determinants of eating behaviour that can be modified. Sports nutritionists often focus their eating interventions on nutrition education to raise awareness comply with nutritionist guidelines. Nutrition education programs are rarely evaluated. There were a number of cross-sectional studies that report nutritional knowledge from both athletes. According to Ozdogan and Ozelik in general, both athletes and coaches do not have enough knowledge about nutrition to create an environment that can produce good performance and optimal health [3]. The importance of nutrition education is increasingly recognized today, and there is a consensus that people's food choices, eating habits, and physical activity behaviours affect health. Knowledge was found to be low for students enrolled at university to become prospective teachers and trainers and they did not realize the importance of nutrition for sports. Adequate

and balanced nutrition must be a perfect lifestyle and become an eating habit for athletes.

From the description above that is the basis of research why this research should be done because of the importance of nutrition knowledge in athletes who can support achievement and maintain their health condition. Jakarta's athletes are also partly national athletes who take part in defending the Indonesian State in international competitions such as Sea games, Asian Games, and other world championships. The purpose of this study was to determine the level of nutritional knowledge, eating habits and nutritional status of Jakarta's water polo athletes who will participate in the XX PON 2020 in Papua.

II. METHOD

This research was conducted using a cross sectional study design. This research was conducted in August-September 2018 at Jakarta Province's Water Polo Training Centre. The samples in this study were all Jakarta Province's water polo athletes registered in Decree of Jakarta Province's Indonesian National Sport Committee. The samples were determined in total sampling. Data of nutrition knowledge and eating habits were obtained through direct interviews with samples and distributing questionnaires. Food consumption data was collected using the 24 hour recall method. The data obtained were analysed descriptively, the food consumption data was translated into nutrients. The nutrient content of food consumed is calculated using the Food Composition List (called DKBM), the level of nutritional adequacy is calculated based on the Recommended Nutrition Adequacy Rate (RDA) in Indonesia. The data obtained then processed statistically. Analysis of data processed using Microsoft Excel 2007 and Statistical Program Social Sciences (SPSS) version 19.0. Relationships between variables were tested using the Pearson and Spearman correlation test.

III. RESULTS AND DISCUSSION

Table 1 showed that the percentage obtained from the calculation of nutritional knowledge of Jakarta's water polo athletes was a good category of 1 person or (3,84%), the medium category were 19 people or (73,07%) and the less category were 6 people or (23,07%). Nutrition knowledge has an important role in the formation of a person's eating habits, because this will affect a person in choosing the type and amount of food consumed [4-7].

TABLE I. NUTRITION KNOWLEDGE LEVEL OF JAKARTA'S WATER POLO ATHLETES

Category	Amount	Percentage (%)
Good category	1	3,84
Medium category	19	73,07
Less category	6	23,07
Total	26	100

Table 2 showed that the eating habits of Jakarta's water polo athletes which had good categories were 23 people or (88.46%), medium categories were 3 people or (11.53%) and the less category was none.

TABLE II. LEVEL OF EATING HABITS OF JAKARTA'S WATER POLO ATHLETES

Category	Amount	Percentage (%)
Good category	23	88,46
Medium category	3	11,53
Less category	0	0
Total	26	100

The average athlete's nutritional knowledge is 66.02%. His is lower than the findings observed in the elite rugby league athlete population [8]. Research by Alaunyte et al showed athletes who scored higher in nutritional knowledge test were more likely to consume more fruits, vegetables and carbohydrate-rich foods [9]. According to Mc Gehee most coaches and athletes have inadequate knowledge [10]. If athletes or coaches have sufficient knowledge about nutrition will create an environment that can produce improved performance and optimal health [11-13].

A. The Relationship Between Nutrition Knowledge and Eating Habits

Based on the Spearman correlation test between the variables of nutritional knowledge with eating habits showed that there were no significant relationship between nutritional knowledge with the eating habits of respondents (p Value = 0.875, r = 0.032). This showed that the better level of respondent's nutritional knowledge was not necessarily related to good eating habits of respondent. According to Khomsan, that the nutritional knowledge possessed by someone was not necessarily a person's willingness to change their eating behaviour [14]. The higher the nutritional knowledge of a person might not necessarily want to calculate the amount and type of food chosen for consumption. The opposite could also happen to someone who had low nutritional knowledge will not necessarily take into account and choose foods to be consumed.

IV. CONCLUSIONS

Nutrition knowledge of Jakarta's water polo athletes, good category as much as 1 person or (3,84%), medium categories as many as 19 people or (73,07%) and less categories as many as 6 people (23,07%). The eating habits of Jakarta's water polo athletes, which had a good category were 23 people or (88.46%), medium categories were 3 people or (11.53%) and the less category was none. Based on the Spearman correlation test between nutritional knowledge variables with eating habits showed that there was no significant relationship between nutritional knowledge with respondents eating habits.

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