

Comparison of Knowledge Levels, Attitudes and Behaviors Regarding the Fulfillment of Fluid Needs During Sports in Taekwondo and Karate Yogyakarta Athletes

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ABSTRACT

Optimal achievement is an accumulation of various factors that support achievement in athletes. For optimal achievement, many things are factors, one of which is a supporting factor related to fluid needs. In this study, the researchers placed more emphasis on athletes' understanding of nutrition. Nutrition has a huge impact on an athlete's performance. Athletes have great potential in training, especially athletes who do not understand nutrition during the training process. The purpose of this study was to find out the comparison of knowledge levels, attitudes, and behaviors regarding the fulfillment of fluid needs during sports in Taekwondo and Yogyakarta karate athletes. The design of this study uses descriptive karate and taekwondo athletes in Yogyakarta. The research was conducted through instruments" questionnaires that have been validated by experts. The results of this study related to the level of knowledge related to fluid fulfillment the average value of karate hydration level is 11.61 the average value of taekwondo hydration level is 12, with the conclusion that there is no difference in hydration level between taekwondo and karate because the significance value is $0.510 > 0.05$. The research for his attitude level was that the average value of karate hydration level was 11.61 the average value of taekwondo hydration level was 12.78 which means there is a difference in hydration levels between taekwondo and karate groups because the significance value is $0.028 < 0.05$ higher in the taekwondo group. Then next is the level of behavior the result is the average value of the hydration level of karate is 12.83 the average value of Taekwondo hydration level is 13.39 which means there is no difference in hydration level between taekwondo and karate because the significance value is $0.257 > 0.05$.

Keywords: taekwondo, karate

1. INTRODUCTION

Fluids are a major component in an athlete's physical activity. Loss of body fluids or often called dehydration can decrease exercise performance and health problems. Dehydration can also decrease cognitive/mental abilities, especially at a dehydration rate of more than 2%. This cognitive ability plays an important role in sports that require skill, concentration and tactics. Decreased cognitive function and concentration will cause a player to perform the wrong movements / techniques or less responsive to the game situation so that the potential for injury.

Dehydration occurs due to the disposal of too much body fluids (through sweat); lack of fluid intake through drinking; Or a combination of the two. Athletes are potentially dehydrated during exercise, especially for

athletes who are not adequately informed about meeting their nutritional and fluid needs during their exercise.

Athletes need to maintain hydration status in their bodies so that they get optimal exercise results and lower the risk of health problems. Athletes in the Special Region of Yogyakarta who are currently doing regional training centers also need to maintain their hydration status during training. The results of health examinations conducted by the team on athletes showed that there was an increase in creatinine in the majority. High amounts of creatinine risk increasing the workload of the kidneys so that if left continuously will be a problem. High creatinine is one of them is caused by athletes who often experience dehydration without realizing it. This is alleged because athletes do not know about dehydration properly because there has been no education and habituation since they were juniors.

The high creatinine is one of them caused by athletes often experiencing dehydration conditions without realizing it. This is thought to be because athletes do not know about dehydration properly because there has been no education and habituation since they were juniors.

Currently the development of sports in Indonesia has increased which is a concern where quality and quantity greatly affect the development of sports by continuously conducting sports coaching and development is part of efforts to improve the quality and quantity of Indonesian people. The construction and development of sports is a conscious effort carried out systematically to achieve the goals of sports [1]. Its very early role in human life, sports became a tool to form the characteristics of a nation that is very effective in the era of globalization. Handling sports activities must be handled by competent and increasingly professional parties, with the increasingly rampant sports activities that are recreational and achievements can be handled both in the quality of the organization and its implementation. Likewise with taekwondo and karate martial arts, the development here of course through the efforts made by coaches and experts in the field of sports, for ±30 years developed a blend of traditional Korean martial arts. Southern and Japanese, then mixed into the martial art of taekwondo as we know it today.

Taekwondo is a martial arts sport originating from South Korea that has developed throughout the world. Taekwondo comes from three syllables, "tae" means foot/crush with a kick, "kwon" means hand/hit or survive with bare hands, and "do" means way/method to destroy and survive using feet and hands. So when interpreted as a whole, taekwondo is a method or way to destroy or survive by using feet and hands. Taekwondo is a Korean martial art that is practiced by over 50 million individuals in more than 50 countries. The popularity of this activity can be attributed to its capacity to shape a person's physical traits in a balanced manner. [2]. Taekwondo is a martial arts discipline that originated in Korea and was one of the first martial arts to compete in the Olympic Games at that time. [3]. Taekwondo is a Korean word that means attacking with the feet, hitting or attacking with the hand, and discipline or art [4]. Taekwondo is a martial arts sport that originated in South Korea and has spread worldwide. Taekwondo is a barefoot and hand-to-hand Korean martial art. [5]. Taekwondo is also a fighting sport because, depending on the position of taekwondo during the contest, athletes use attack and defensive tactics. [6].

Historical records show that the origins of karate originated in India, then to China, then to Okinawa Island, and developed rapidly in Japan [7]. Karate entered Indonesia in 1963 brought by Indonesian students returning from Japan [8]. The Indonesian Karate Sports Federation (FORKI) is the parent karate organization in Indonesia which houses 24 karate colleges. INKAI is one of the karate universities in Indonesia with Shotokan [7].

Seeing the high risk of dehydration in athletes, it is necessary to make efforts to prevent injury through

understanding and meeting the needs of adequate fluids when exercising for athletes. Assessment of the level of knowledge, attitudes and behaviors regarding the fulfillment of fluid needs during exercise is very important as a first step considering that the data related to it has never existed and been studied.

This study aims to find out the comparison of knowledge, attitudes and behaviors regarding the fulfillment of fluid needs during sports in taekwondo and karate yogyakarta athletes. The data obtained can be used to compile a promotive-preventive program on dehydration so that DIY athletes know the benefits and importance of meeting the needs of body fluids during exercise.

2. METHODS

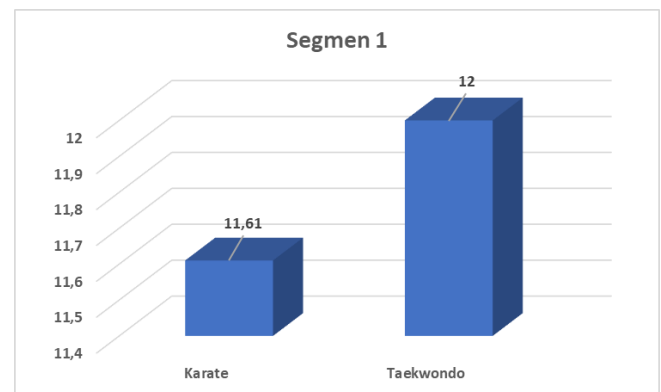
The sample in this study amounted to 46 people consisting of 23 junior taekwondo athletes and 23 junior karate athletes who participated in the Development of Talented Athletes in DIY. The article in this study is descriptive research. Descriptive research is not intended to test a particular hypothesis, but simply describes "what it is" about something variable, symptom or state [9]. Theetode used in this research is a survey method with test and measurement techniques.

3. RESULTS

Table 1. Independent T Test 1

Segmen	Kelompok	N	Mean	Std. Deviation	Std. Error Mean
1	Karate	23	11.61	1.725	.360
	Taekwondo	23	12.00	2.236	.466

The average value of karate hydration level is 11.61. The average value of taekwondo hydration level is 12. there is no difference in the level of hydration between taekwondo and karate because the significance value is $0.510 > 0.05$

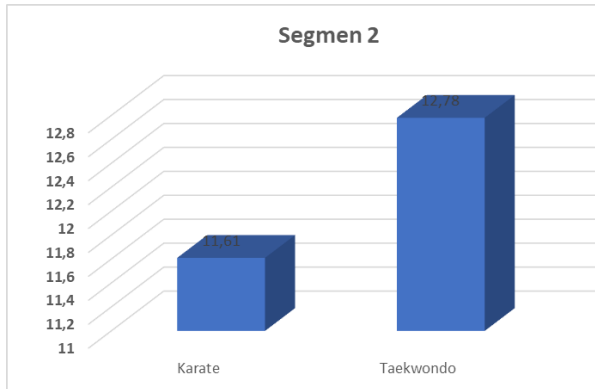


Segmen 1 Taekwondo and Karate Comparison

Table 2. Independent T Test 2

Segmen	Kelompok	N	Mean	Std. Deviation	Std. Error Mean
	2	Karate	23	11.61	1.588
Taekwondo		23	12.78	1.906	.397

The average value of karate hydration level is 11.61. The average hydration rate of taekwondo is 12.78. There is a difference in the level of hidari between taekwondo and karate groups because the significance value is $0.028 < 0.05$ higher in taekwondo group.

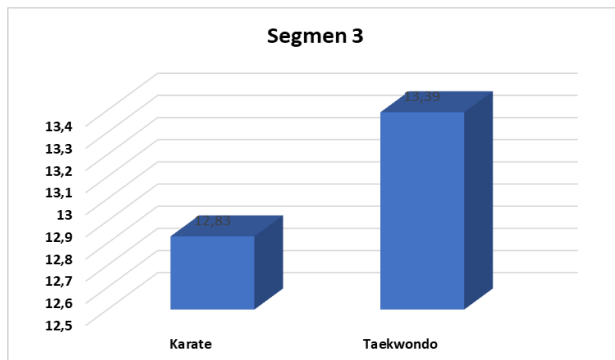


Segmen 2 Taekwondo and Karate Comparison

Table 3. Independent T Test 3

Segmen 3	Kelompok	N	Mean	Std. Deviation	Std. Error Mean
		Karate	23	12.83	2.015
Taekwondo		23	13.39	1.234	.257

The average value of karate hydration level is 12.83 the average value of taekwondo hydration level is 13.39. There is no difference in the level of hydration between taekwondo and karate because the significance value is $0.257 > 0.05$



Segmen 3 Taekwondo and Karate Comparison

4. CONCLUSION

During exercise, it is necessary to consume a body fluid replacement drink that contains electrolytes,

particularly sodium and potassium, as well as glucose, [10]. Sodium-containing electrolyte drinks promote fluid retention and stimulate the desire to drink [11]. Maintaining homeostasis and human survival, including brain function, necessitates adequate hydration. Dehydration at a moderate level, which starts with dizziness and progresses slowly, has been linked to cognitive and mental impairments in [12]. Water makes up the majority of the body's components. The entire amount of water in the body of the average young adult guy is 50-70 percent of his body weight [13]. Each person's total body water content varies based on their body composition, which includes both body fat mass and non-body fat period. Because non-fat body mass has a water content of 73% and body fat mass has a water content of 10% [13], oxygen may be delivered to all parts of the body more quickly. As a result, athletes who have been trained in aerobic endurance have a heart rate of fewer than 60 beats per minute. Age, gender, environmental temperature, physical activity, physical size, and nutritional status all influence a person's water requirements.

Gender, nutritional status, and other factors may have an impact on the study's results. Based on the findings of the preceding data analysis, A comparison of Taekwondo and Karate Yogyakarta athletes' knowledge, attitudes, and behaviors towards the fulfillment of fluid needs during sports. The average hydration level of karate is 11.61 based on the value of the first section in terms of knowledge. The average hydration level in taekwondo is 12. Because the significant value is $0.510 > 0.05$, there is no difference in hydration levels between taekwondo and karate. At karate hydration level, the average attitude-related score was 11.61. Taekwondo's average hydration level is 12.78. Because the significant value in the taekwondo group is $0.028 < 0.05$ higher than in the karate group, there is a difference in hydration levels between the two groups. Furthermore, in terms of behavior The average hydration level in karate is 12.83. The average hydration level in taekwondo is 13.39. Because the significant value of $0.257 > 0.05$, there is no difference in hydration level between taekwondo and karate. The findings reveal that it is most likely a novel discovery, and they include references to hydration levels in karate and taekwondo from administrators, coaches, and stakeholders.

ACKNOWLEDGMENT

The author would like to thank UNY for funding this group's research.

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