

## ABSTRACT

*Taekwondo* athlete needs endurance of heart and lung while describing capacity to do activity continually during long time without experiencing fatigue. To support these activities, they need an adequate health physics. One way to get reliance needs good nutritional status, health status, and appropriate nutrition.

The objective of this research was to study the characteristics, food habits, and correlation of consumption level of (energy, carbohydrate, protein, fat, vitamin C, and iron), nutrition status, and health status with physical fitness ( $VO_2MAX$ ) of *taekwondo* athlete in Pemusatan Latihan Daerah (Puslatda) of East Java.

This research was a comparative observational using cross sectional design. Population of this research was the entire athlete of *taekwondo* in Puslatda of East Java. The samples was *taekwondo* athlete who complied the criteria of toddlers get to be the winner in Kejuaraan Daerah (Kejurda), have a medal such as gold, silver, or bronze and were willing to become respondents. At least the athlete were compared with unselected athlete in Puslatda of East Java who, were 26 respondents. The data collection which covered the characteristic of athlete, the consumption habits was measured using form food frequency, the level of consumption was measured using form food recall, nutrient status was measured using Body Mass Index (BMI), and for health status was measured using quesioner. The data was then analyzed using correlation chi square test.

Result of this research showed that there were no correlation ( $p>0,05$ ) between consumption level of energy, carbohydrate, protein, fat, and vitamin C with physical fitness ( $VO_2MAX$ ). There were correlation ( $p<0,05$ ) between consumption level of iron with physical fitness ( $VO_2MAX$ ). There were no correlation ( $p>0,05$ ) between nutrition status with physical fitness ( $VO_2MAX$ ). And there were correlation ( $p<0,05$ ) between healthy status with physical fitness ( $VO_2MAX$ ).

Therefore it could be concluded that physical fitness ( $VO_2MAX$ ) of *taekwondo* athlete in Pemusatan Latihan Daerah (Puslatda) of East Java could not only influenced by food consumption, but also could be influenced by the other factors.

Key Words: level of consumption, physical fitness, athele *taekwondo*