Hubungan Tingkat Konsumsi Energi, Protein, Zat Besi dan Status Gizi dengan Tingkat Kebugaran Jasmani Pada Atlet Olahraga Bola Voli di Politeknik Negeri Jember. Reationship Consumption Level of Energy, Protein, Iron and Nutritional Status With Physical Fitness Level to Volleyball Athlete in Polytechnic State of Jember.

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## **ABSTRACT**

Cardiorespiratory Endurance is the ability of the heart, lungs, blood vessels and muscles that large to do exercises in duration a very long time and is a important component of physical fitness. To achieve the level of high physical fitness not only physical exercise (sports) but also needed a good nutritional intake. The better nutritional intake of someone accompanied well-run physical exercise (sports) makes increasingly high their physical fitness.

This research aims is to know the relationship consumption level of energy, protein, iron and nutritional status with physical fitness level to volleyball athlete in polytechnic state of jember.

This research uses the method quantitative study with kind of cross-sectional research. The subject of study consist 20 athletes, consisting of 10 men athletes and 10 women athletes. The data analysis performed using univariate and bivariate analysis.

Based on the results of univariate analysis that the majority of physical fitness athletes is very weak. Of the results of the bivariate analysis obtained 2 variable are related with physical fitness, namely the Consumption Level of Energy with p value 0,000, Consumption Level of protein with p value 0,032 and Consumption Level of iron with p value 0,039. And obtained 2 variables is not related to Physical Fitness Level, namely Body Mass Index (BMI) and Mid-upperarm muscle circumference.

Based on these results, the author suggested by the volleyball athletes in polytechnic state of jember, although they have a tidy schedule lecture to keep it always consumed a kind of food, portions and frequency of appropriate to nutrition balanced and should control their weight to keep ideal and not occurring lack of weight.

Keywords: Cardiorespiratory Endurance, Consumption Level of Energy, Consumption Level of Iron, Consumption Level of Protein, and Nutritional Status.