ABSTRACT

Adolescent athletes need high nutrition for their growing phase and replacing high energy expenditures from exercising. Gymnasts reduce consuming food in order to get their weight ideal. This research is to see correlation between energy expenditures and consumption level with body composition of adolescent gymnast in Persani Jatim.

This research was a cross sectional analytic. Sample used in this research was entire population that consisted of 9 male and 14 female athletes. Anthropometry measurement and interview were used to collect data which were needed. Independent variables were consumption level (energy, carbohydrate, protein, and fat), energy expenditures, and energy balance. Pearson Correlation Test was used to analyze correlation between variables.

Results showed that male (88.9%) and female athletes (92.9%) had normal categorical IMT/U. Energy, carbohydrate, protein, and fat intake had correlation with body composition (body fat) in male athletes. Only protein intake had correlation with body composition (body fat) in female athletes. Energy, carbohydrate, and fat intake had no correlation with body composition (body fat) in female athletes. Energy expenditure had correlation with body composition in male athletes, but in female athletes had no correlation. Pearson Correlation Test showed that body fat had no correlation with energy balance in male and female athletes Persani Jatim.

Low average body fat is expected to improve the physical fitness of athletes. Restrict consumption in carbohydrate, protein, and fat intake can decrease body fat athletes. So controlling body fat with BIA is important in athletes.

Keywords: Nutrition athletes, body composition, energy expenditure.