

**Correlation Between Intake of Macronutrients, Nutritional Status and  
Physical Activity on the Menstrual Cycle  
of Jember State Polytechnic Students**

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***ABSTRACT***

Riskesdas 2010 data shows that 13.3% of East Java women experience irregular menstrual cycle problems. Factors that can disrupt the menstrual cycle include problems with nutritional status, nutritional intake, and physical activity. The purpose of this study was to determine the relationship between intake of macronutrients, nutritional status, and physical activity on the menstrual cycle in female students of Jember State Polytechnic. This study uses a type of cross-sectional research design with an analytic survey research method. Subjects were taken as many as 201 respondents with the technique of taking the subject using accidental sampling. The instruments used in this study were micro toise to measure height, digital scales to measure body weight, menstrual cycle form to determine menstrual cycle, SQ-FFQ form to determine intake consumed, and IPAQ form to determine the amount of physical activity. Bivariate test results using the chi-square test obtained  $p = 0.000$  for intake of macronutrients (protein, fat, and carbohydrates) and physical activity, using the Fisher's exact test for nutritional status obtained  $p = 0.000$  so it can be concluded that there is a relationship between intake of macronutrients (protein, fat and carbohydrates), physical activity and nutritional status on the menstrual cycle.

**Keywords:** Intake of Macronutrients, Nutritional Status, Physical Activity, Menstrual Cycle