

# **The Relationship between Iron Intake, Nutritional Status, and Hemoglobin Levels with Physical Fitness of Adolescent Girls at SMAN Arjasa Jember**

**Fitra Rakhmaudina Zahwa**

Clinical Nutrition Study Program

Departement of Health

## ***ABSTRACT***

Physical fitness is a person's ability to carry out daily activities without experiencing significant fatigue and still having energy reserves to carry out further activities. Several factors that can affect a person's physical fitness are age, gender, physical activity, smoking habits, nutrient intake, and nutritional status. Based on a preliminary study conducted on 20 female students at SMAN Arjasa Jember, 10 of them had poor physical fitness. This study aims to determine the relationship between iron intake, nutritional status, and hemoglobin levels with the physical fitness of female adolescents at SMAN Arjasa Jember. The sample of this study was female adolescents at SMAN Arjasa Jember. This research method uses an observational analytical method with a *cross-sectional* design. The sample size needed in this study was 43 female adolescents. The results of the *Chi-Square* test data analysis of the relationship between iron intake and physical fitness obtained a *p-Value* of  $0.045 < 0.05$ , meaning that there is a significant relationship between the two variables. The relationship between hemoglobin levels and physical fitness obtained a *p-Value* of  $0.087 < 0.05$ , meaning that there is a significant relationship between the two variables. However, the results of the data analysis on the relationship between nutritional status and physical fitness did not show significant results.

**Keywords :** Iron Intake, Nutritional Status, Hemoglobin Levels, Physical Fitness, Adolescent Girls.