Differences in Giving Red Guava Juice and Orange Juice with Fe Tablets on Changes in Hemoglobin Levels in Adolescent Girls

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ABSTRACT

Anemia in adolescents can have negative impacts on academic performance. One strategy for preventing anemia is by consuming foods rich in vitamin C. This study aims to evaluate whether there is a difference in hemoglobin levels among adolescent girls given iron tablets in guava and sweet orange juice. The research design employs a quasi-experimental method, with two pre-test and post-test groups supplemented by a control group. In this study, 30 female adolescent students from grade X of SMAN 1 Jember were divided into two groups: one control group and one treatment group. A simple sampling method was used to select research subjects. The control group received only one iron tablet per week. Over a period of fourteen days, treatment group A received guava juice with iron tablets at 250 milliliters per day, while treatment group B received orange juice with iron tablets at the same dosage. The results of the Paired t-test indicate a difference in hemoglobin levels between the treatment and control groups before and after the intervention (p = 0.001).

***Key words**: adolescent girls, hemoglobin levels, vitamin C*