

**THE EFFECT OF GIVING RED DRAGON FRUIT AND LEMON JUICE ON
TRIGLYCERIDE LEVELS IN OBESITY STUDENTS IN THE HEALTH
DEPARTMENT OF THE STATE POLYTECHNIC OF JEMBER**

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ABSTRACT

*Obesity is often accompanied by metabolic disorders that cause increased blood lipid levels, especially triglycerides. Triglycerides, as the main form of fat in the blood, specifically increased triglyceride levels occur because the body stores excess energy from fat and carbohydrates in the form of triglycerides in adipose tissue. Red dragon fruit is one of the fruits that contains antioxidants in the form of flavonoids, the flesh of red dragon fruit contains total phenolics and flavonoids varying between 25 and 55 mg GAE and 15–35 mg CE per 100 g. Red Dragon Fruit (*H. Polyrrhizus*) has a much higher amount of phenolics and antioxidant potential than white dragon fruit. The purpose of this study was to determine the effect of red dragon fruit and lemon juice on triglyceride levels in obese students majoring in Health at the Jember State Polytechnic. The research method used was Quasi-Experimental with a Pretest and Posttest with Control Group design, the technique in selecting the research subjects used a Non Random Sampling Accidental technique, with 26 students as research subjects divided into 2 groups, namely 13 treatment groups and 13 control groups. The treatment group was given 130 ml of red dragon fruit juice for 21 days, while the control group consumed only 220 ml of mineral water for 21 days. Triglyceride levels were measured by taking fasting blood samples from the respondents through the cubital vein, which was performed by laboratory staff in the morning. The study concluded that there was a decrease in triglyceride levels, but no difference in effectiveness between the treatment and control groups.*

Keywords: *Health students, obesity, triglyceride levels, flavonoids, red dragon and lemon fruit juice*