

The Relationship Between Fiber Intake and Physical Activity and Total Cholesterol Levels in Patients with Hypercholesterolemia at the Jember Regency Community Health Center

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ABSTRACT

Hypercholesterolemia is one of the major risk factors for cardiovascular disease and is influenced by various factors, including fiber intake and physical activity. This study aimed to analyze the association between fiber intake and physical activity and total cholesterol levels in patients with hypercholesterolemia at the Jember District Public Health Center. The study used an analytical observational design with a cross-sectional approach involving 108 respondents selected through purposive sampling. Data on fiber intake were obtained through a 1×24-hour food recall over 3 days; physical activity was measured using the Global Physical Activity Questionnaire (GPAQ); and total cholesterol levels were measured using the Family Dr. device. Analysis was performed using the chi-square test ($\alpha = 0.05$).

The results showed that the majority of participants had total cholesterol levels in the desirable range (50.9%), fiber intake in the adequate range (58.3%), and physical activity at a moderate level (55.6%). The Chi-Square test revealed a significant association between fiber intake and total cholesterol levels ($p = 0.000$; $r = 0.696$) as well as between physical activity and total cholesterol levels ($p = 0.006$; $r = 0.260$), with a weak strength of association.

It is concluded that dietary fiber intake and physical activity are significantly associated with total cholesterol levels in patients with hypercholesterolemia at the Jember District Public Health Center. Increasing the consumption of high-fiber foods and engaging in regular physical activity should continue to be recommended as measures to control cholesterol levels and prevent cardiovascular disease.

Keywords: *hypercholesterolemia, fiber intake, physical activity, total cholesterol levels, GPAQ.*