

***The Association between Energy and Protein Density with Obesity in Adults in the
Tembokrejo Urban Village, Pasuruan City***

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ABSTRACT

Obesity is a significant health issue that commonly arises during adulthood. The prevalence of obesity in the working area of Sekargadung Public Health Center, Pasuruan City, remains notably high at 49.6%. One of the most densely populated urban village in the area is Tembokrejo. Obesity may result from an imbalance between energy intake from food and energy expenditure by the body. The consumption of foods with high energy density and high protein density can contribute to obesity if not accompanied by sufficient physical activity. The aim of this study is to examine the relationship between energy density and protein density and obesity among adults in Tembokrejo Urban Village, Pasuruan City. This research employed an analytical observational method with a cross-sectional study design. A total of 174 respondents participated in this study. Respondents were selected through simple random sampling to determine both the subdistrict and the study subjects. Data on energy and protein density were collected using a 2x24-hour food recall form. Obesity status was assessed through measurements of body weight and height, followed by the calculation of Body Mass Index (BMI). Data analysis was conducted using the Chi-square test, which revealed a significant association between energy density and obesity (p -value = 0.000), as well as a significant association between protein density and obesity (p -value = 0.008) among adults in Tembokrejo Urban Village, Pasuruan City.

Keyword: *Energy Density, Protein Density, Obesity*