

Hubungan Asupan Zat Gizi Makro dan Aktivitas Fisik dengan Komposisi Tubuh pada Lansia di Panti Wreda Budi Dharma dan Panti Wreda Abiyoso

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INTISARI

Latar Belakang :

Jumlah lansia di Indonesia terus meningkat dan diikuti dengan perubahan fisiologis, termasuk perubahan komposisi tubuh seperti peningkatan lemak tubuh dan penurunan massa otot. Perubahan tersebut dapat meningkatkan risiko penyakit degeneratif dan menurunkan kualitas hidup lansia. Asupan zat gizi makro dan aktivitas fisik merupakan faktor yang dapat dimodifikasi dan berperan dalam menentukan komposisi tubuh. Lansia yang tinggal di panti wreda berisiko mengalami ketidakseimbangan asupan gizi dan aktivitas fisik yang dapat memengaruhi kondisi tubuhnya.

Tujuan:

Mengetahui hubungan antara asupan zat gizi makro dan aktivitas fisik dengan komposisi tubuh pada lansia di Panti Wreda Budi Dharma dan Panti Wreda Abiyoso.

Metode:

Penelitian ini merupakan penelitian observasional analitik dengan desain *cross-sectional* yang dilaksanakan pada Oktober 2025 hingga Februari 2026. Sampel penelitian berjumlah 70 lansia yang dipilih menggunakan teknik *purposive sampling*. Data asupan zat gizi makro diperoleh melalui *food recall* 3×24 jam, aktivitas fisik diukur menggunakan *Physical Activity Scale for the Elderly* (PASE), dan komposisi tubuh diukur menggunakan *Bioelectrical Impedance Analysis* (BIA). Analisis data dilakukan secara univariat dan bivariat menggunakan uji Chi-Square dengan tingkat signifikansi $p < 0,05$.

Hasil:

Tidak terdapat hubungan yang signifikan antara asupan energi ($p=0,961$), karbohidrat ($p=0,596$), protein ($p=0,075$), dan lemak ($p=0,466$) dengan persen lemak tubuh. Tidak terdapat hubungan yang signifikan antara asupan energi ($p=0,540$), karbohidrat ($p=0,222$), protein ($p=0,714$), dan lemak ($p=0,871$) dengan lemak visceral. Terdapat hubungan yang signifikan antara asupan energi ($p=0,045$) dan protein ($p=0,041$) dengan massa otot, namun tidak terdapat hubungan antara asupan karbohidrat ($p=0,524$) dan lemak ($p=0,337$) dengan massa otot. Aktivitas fisik memiliki hubungan yang signifikan dengan persen lemak tubuh ($p=0,002$) dan lemak visceral ($p=0,006$), namun tidak berhubungan dengan massa otot ($p=0,315$).

Kesimpulan:

Asupan zat gizi makro tidak berhubungan dengan persen lemak tubuh dan lemak visceral, namun asupan energi dan protein berhubungan dengan massa otot. Aktivitas fisik berhubungan dengan persen lemak tubuh dan lemak visceral, tetapi tidak berhubungan dengan massa otot pada lansia.

Kata Kunci: asupan zat gizi makro, aktivitas fisik, komposisi tubuh, lansia

The Association of Macronutrient Intake and Physical Activity with Body Composition among Ederly Residents in Budi Dharma and Abiyoso Nursing Homes

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ABSTRACT

Background:

The elderly population in Indonesia continues to increase and is accompanied by physiological changes, including alterations in body composition such as increased body fat and decreased muscle mass. These changes may increase the risk of degenerative diseases and reduce quality of life. Macronutrient intake and physical activity are modifiable factors that play an important role in determining body composition. Elderly individuals living in nursing homes are at risk of having imbalanced nutrient intake and physical activity, which may affect their body condition.

Objective:

To determine the relationship between macronutrient intake and physical activity with body composition among elderly individuals in Budi Dharma and Abiyoso Nursing Homes.

Methods:

This study was an analytic observational study with a cross-sectional design conducted from October 2025 to February 2026. A total of 70 elderly participants were selected using purposive sampling. Macronutrient intake data were collected using 3×24-hour food recall, physical activity was assessed using the Physical Activity Scale for the Elderly (PASE), and body composition was measured using Bioelectrical Impedance Analysis (BIA). Data were analyzed using univariate and bivariate analysis with Chi-Square test at a significance level of $p < 0.05$.

Results:

There was no significant relationship between energy ($p=0.961$), carbohydrate ($p=0.596$), protein ($p=0.075$), and fat intake ($p=0.466$) with body fat percentage. There was also no significant relationship between energy ($p=0.540$), carbohydrate ($p=0.222$), protein ($p=0.714$), and fat intake ($p=0.871$) with visceral fat. However, energy ($p=0.045$) and protein intake ($p=0.041$) were significantly associated with muscle mass, while carbohydrate ($p=0.524$) and fat intake ($p=0.337$) were not. Physical activity was significantly associated with body fat percentage ($p=0.002$) and visceral fat ($p=0.006$), but not with muscle mass ($p=0.315$).

Conclusion:

Macronutrient intake was not associated with body fat percentage and visceral fat, but energy and protein intake were associated with muscle mass. Physical activity was associated with body fat percentage and visceral fat, but not with muscle mass among the elderly.

Keywords: macronutrient intake, physical activity, body composition, elderly