

OVERVIEW OF MACRONUTRIENT INTAKE (ENERGY, PROTEIN, FAT, CARBOHYDRATE) AND NUTRITIONAL STATUS OF ADOLESCENT GIRLS IN PENDOWOREJO VILLAGE

Amatulloh Nafisah¹, M. Primiaji Rialihanto², Slamet Iskandar³
^{1,2,3}Department of Nutrition Poltekkes Kemenkes Yogyakarta
Jl. Tatabumi No.3 Banyuraden, Gamping, Sleman
Email: amanafiesah444@gmail.com

ABSTRACT

Background: Adolescents require optimal macronutrient intake to support rapid physical growth and development. Imbalances in energy, protein, fat, and carbohydrate intake can lead to a double burden of malnutrition, manifesting as either nutrient deficiency or excess among adolescent girls. Pendoworejo Village is a rural, hilly area with limited food access, making it important to describe the macronutrient intake and nutritional status of adolescent girls in this area.

Objective: Describe the intake of energy, protein, fat, and carbohydrate, as well as the nutritional status of adolescent girls in Pendoworejo Village.

Methods: This was a descriptive quantitative study with a cross-sectional design. The sample consisted of 59 adolescent girls aged 10-18 years in Pendoworejo Village, selected using a purposive sampling technique. Macronutrient intake data were obtained through a 3x24-hour food recall and compared with the 2019 Recommended Dietary Allowance (RDA), while nutritional status was assessed using the BMI-for-age (IMT/U) index based on anthropometric measurements of body weight and height.

Results: Most adolescent girls had insufficient energy intake (86.4%; mean $1,183.1 \pm 443.2$ kcal/day or 56.3% of RDA), insufficient protein intake (66.1%; mean 46.7 ± 15.8 grams/day or 71.9% of RDA), insufficient fat intake (79.7%; mean 43.0 ± 18.8 grams/day or 61.5% of RDA), and insufficient carbohydrate intake (94.9%; mean 147.7 ± 51.3 grams/day or 49.2% of RDA), which represented the largest deficit among the four macronutrients. Nutritional status based on BMI-for-age was mostly classified as normal (71.2%), while 10.2% were undernourished, 11.9% overnourished, 3.4% severely undernourished, and 3.4% obese, resulting in 28.8% of adolescent girls with abnormal nutritional status. For each macronutrient component, the largest proportion of adolescents with insufficient intake was actually classified as having normal nutritional status, indicating that the relationship between macronutrient intake and nutritional status is not simply linear.

Conclusion: The majority of adolescent girls in Pendoworejo Village experienced macronutrient intake deficits, particularly in carbohydrate and energy, although their anthropometric nutritional status was generally still classified as normal.

Keywords: macronutrient intake, nutritional status, adolescent girls

GAMBARAN ASUPAN MAKRONUTRIEN (ENERGI, PROTEIN, LEMAK, KARBOHIDRAT) DAN STATUS GIZI REMAJA PUTRI DI DESA PENDOWOREJO

Amatulloh Nafisah¹, M. Primiaji Rialihanto², Slamet Iskandar³

^{1,2,3}Department of Nutrition Poltekkes Kemenkes Yogyakarta

Jl. Tatabumi No.3 Banyuraden, Gamping, Sleman

Email: amanafiesah444@gmail.com

ABSTRAK

Latar Belakang: Remaja merupakan kelompok usia yang membutuhkan asupan makronutrien optimal untuk mendukung pertumbuhan dan perkembangan fisik yang pesat. Ketidakseimbangan asupan energi, protein, lemak, dan karbohidrat dapat menyebabkan masalah gizi ganda berupa kekurangan maupun kelebihan gizi pada remaja putri. Desa Pendoworejo merupakan wilayah pedesaan berkarakter perbukitan dengan akses pangan yang terbatas, sehingga gambaran asupan makronutrien dan status gizi remaja putri di wilayah ini penting untuk diketahui.

Tujuan: Mengetahui gambaran asupan energi, protein, lemak, dan karbohidrat serta status gizi pada remaja putri di Desa Pendoworejo.

Metode: Penelitian ini merupakan penelitian deskriptif kuantitatif dengan desain *cross sectional*. Sampel berjumlah 59 remaja putri usia 10-18 tahun di Desa Pendoworejo yang dipilih menggunakan teknik *purposive sampling*. Data asupan makronutrien diperoleh melalui food recall 3x24 jam dan dibandingkan dengan Angka Kecukupan Gizi (AKG) 2019, sedangkan status gizi diukur menggunakan indeks IMT/U berdasarkan pengukuran antropometri berat badan dan tinggi badan.

Hasil: Sebagian besar remaja putri memiliki asupan energi kurang (86,4%; rerata 1.183,1±443,2 kkal/hari atau 56,3% AKG), asupan protein kurang (66,1%; rerata 46,7±15,8 gram/hari atau 71,9% AKG), asupan lemak kurang (79,7%; rerata 43,0±18,8 gram/hari atau 61,5% AKG), dan asupan karbohidrat kurang (94,9%; rerata 147,7±51,3 gram/hari atau 49,2% AKG) yang merupakan defisit terbesar di antara keempat makronutrien. Status gizi berdasarkan IMT/U sebagian besar tergolong baik (71,2%), sementara 10,2% gizi kurang, 11,9% gizi lebih, 3,4% gizi buruk, dan 3,4% obesitas, sehingga terdapat 28,8% remaja putri dengan status gizi tidak normal. Pada setiap komponen makronutrien, proporsi terbesar remaja dengan asupan kurang justru berstatus gizi baik, mengindikasikan hubungan antara asupan makronutrien dan status gizi tidak bersifat linear sederhana.

Kesimpulan: Mayoritas remaja putri di Desa Pendoworejo mengalami defisit asupan makronutrien, terutama karbohidrat dan energi, meskipun status gizi antropometri secara umum masih tergolong baik.

Kata Kunci: asupan makronutrien, status gizi, remaja putri