

**HUBUNGAN ANTARA ASUPAN PROTEIN, BESI, DAN SENG DENGAN
STATUS GIZI PADA ANAK BALITA GIZI BURUK
DI WILAYAH KERJA DINAS KESEHATAN KOTA SEMARANG**

Artikel Penelitian

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ASSOCIATION BETWEEN DIETARY PROTEIN, IRON, AND ZINC INTAKE WITH NUTRITIONAL STATUS IN SEVERE MALNUTRITION CHILDREN UNDER FIVE YEARS OF AGE AT WORK REGION SEMARANG CITY HEALTH DEPARTMENT

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ABSTRACT

Background : Severe malnutrition was threatening children under five years growth. Protein deficiency in long time caused severe malnutrition. Children with severe malnutrition had micronutrients deficiency, like iron and zinc. Iron and zinc deficiency caused nutritional status decreasing.

Objective : This research conduct to analyze the association dietary protein, iron, and zinc intake with nutritional status in severe malnutrition children under five years of age.

Method : Study cross sectional in 21 severe malnutrition children under five years of age at work region Semarang City Health Department. The data nutritional status were searched using indicator of weight by height (W/H). The data dietary protein, iron, zinc, and fiber intake were searched by semi quantitative food frequency questionnaire (SQFFQ). The data analyzed by SPSS 12.0 for windows. Bivariate analysis used pearson product moment and multivariate analysis used multiple regression linier.

Result : Nutritional status subjects which using W/H indicator were -5.72 until -3.02. At 13 until 36 month of age, subjects had 6.8 gr/d until 31.5 gr/d dietary protein intake, 1.3 mg/d until 6 mg/d dietary iron intake, and 1 mg/d until 3.3 mg/d dietary zinc intake. At 37 until 59 month of age, subjects had 11.3 gr/d until 48.5 gr/d dietary protein intake, 2.6 mg/d until 10.2 mg/d dietary iron intake, and 1.5 mg/d until 5.6 mg/d dietary zinc intake. Most of dietary protein (61.9%), iron (90.5%), and zinc (100%) intake were deficit category according to Recommended Dietary Allowances. But, most of dietary protein (61.9%) and zinc (57.1%) were good category, and all of dietary iron was deficit category according to each dietary requirements. There were no association between dietary protein ($r=0.143;p=0.27$), iron ($r=0.089;p=0.35$), and zinc intake ($r=0.122;p=0.3$) with nutritional status in severe malnutrition children under five years of age.

Conclusion : There were not proven the association between dietary protein, iron, and zinc intake with nutritional status in severe malnutrition children under five years of age.

Keywords : Nutritional status, severe malnutrition children under five years of age, protein intake, iron intake, and zinc intake

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ABSTRAK

Latar Belakang : Gizi buruk dapat mengancam kelangsungan pertumbuhan anak balita. Kekurangan protein dalam jangka lama menyebabkan terjadinya gizi buruk. Anak dengan status gizi buruk mengalami defisiensi besi dan seng. Defisiensi besi dan seng ini menyebabkan penurunan status gizi.

Tujuan : Penelitian ini bertujuan untuk mengetahui hubungan asupan protein, besi, dan seng dengan status gizi pada anak balita gizi buruk.

Metode : Studi *cross sectional* pada 21 anak balita gizi buruk di wilayah kerja Dinas Kesehatan Kota Semarang. Data status gizi diukur dengan indikator BB/TB, sedangkan asupan protein, besi, seng, dan serat diperoleh dari *semi quantitative food frequency questionnaire* (SQFFQ). Analisis data menggunakan SPSS 12.0 for windows. Analisis data secara bivariat menggunakan *Pearson product moment* dan multivariat menggunakan regresi linier berganda.

Hasil : Status gizi subyek berdasarkan *Z-score* BB/TB berkisar antara -5,72 sampai -3,02. Pada subyek usia 13 sampai 36 bulan, asupan protein berkisar antara 6,8 gr/hr sampai 31,5 gr/hr, asupan besi berkisar antara 1,3 mg/hr sampai 6 mg/hr, dan asupan seng berkisar antara 1 g/hr sampai 3,3 mg/hr. Pada subyek usia 37 sampai 59 bulan, asupan protein berkisar 11,3 mg/hr sampai 48,5 mg/hr, asupan besi berkisar antara 2,6 mg/hr sampai 10,2 mg/hr, dan asupan seng berkisar 1,5 mg/hr sampai 5,6 mg/hr. Sebagian besar asupan protein (61,9%), besi (90,5%), dan seng (100%) subyek dalam kategori defisit berdasarkan kategori yang dibandingkan dengan angka kecukupan gizi. Sedangkan sebagian besar asupan protein (61,9%) dan seng (57,1%) dalam kategori baik dan semua asupan besi dalam kategori defisit berdasarkan kategori yang dibandingkan dengan kebutuhan masing-masing. Tidak terdapat hubungan yang bermakna antara asupan protein ($r=0,143$; $p=0,27$), besi ($r=0,089$; $p=0,35$), seng ($r=0,122$; $p=0,3$) dengan status gizi pada anak balita gizi buruk.

Kesimpulan : Tidak terbukti adanya hubungan antara asupan protein, besi, dan seng dengan status gizi pada anak balita gizi buruk

Kata Kunci : Status gizi, anak balita gizi buruk, asupan protein, asupan besi, dan asupan seng

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