

**HUBUNGAN ASUPAN PROTEIN TERHADAP PERKEMBANGAN  
KOGNITIF ANAK USIA 7-24 BULAN MENGGUNAKAN METODE  
CAPUTE SCALES**

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**ABSTRAK**

**Latar Belakang :** Kekurangan zat gizi pada dua tahun pertama kehidupan menyebabkan kapasitas otak yang terbentuk tidak maksimum dan lemahnya kognitif anak. Protein merupakan salah satu zat gizi yang berhubungan dengan perkembangan kognitif. Protein dibutuhkan untuk neurogenesis, pertumbuhan neurit, sinaptogenesis, myelinisasi, *electrical efficiency*, dan konsentrasi *neurotransmitter* sehingga mempengaruhi perkembangan kognitif.

**Tujuan :** Mengidentifikasi hubungan asupan protein terhadap perkembangan kognitif anak usia 7-24 bulan menggunakan metode *Capute scales*.

**Metode :** Penelitian ini adalah penelitian observational analitik dengan rancangan *cross-sectional*. Teknik pengambilan sampel menggunakan *total sampling*. Sampel penelitian sebanyak 71 anak usia 7-24 bulan di Desa Rempoah, Banyumas saat dilakukan penelitian. Data asupan protein didapatkan dari wawancara kuesioner *food recall* 4x24 jam untuk anak usia 7-11 bulan dan 3x24 jam untuk anak usia 12-24 bulan. Data perkembangan kognitif diukur dengan pemeriksaan *Capute scales*.

**Hasil :** Terdapat hubungan yang bermakna antara asupan protein terhadap perkembangan kognitif anak usia 7-24 bulan (OR=5,133; 95% IK=1,044-25,229;  $p<0,05$ ).

**Kesimpulan :** Terdapat hubungan antara asupan protein terhadap perkembangan kognitif anak usia 7-24 bulan. Anak usia 7-24 bulan yang memiliki asupan protein kurang beresiko mengalami gangguan perkembangan kognitif 5,133 kali lebih besar dari anak usia 7-24 bulan yang memiliki asupan protein adekuat.

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Kata kunci : asupan protein, *Capute scales*, perkembangan kognitif

**ASSOCIATION BETWEEN PROTEIN INTAKE AND COGNITIVE  
DEVELOPMENT IN CHILDREN AGED 7-24 MONTHS OLD USING  
CAPUTE SCALES METHOD**

***A Study in Rempoah Village, Baturaden Sub-district, Banyumas District, Jawa  
Tengah Province***

**ABSTRACT**

**Background :** *Nutritional deficiencies in the first two years of life may lead failure of maximum brain capacity and cognitive development. Protein is one of the nutrient correlates with cognitive development. Protein is required for neurogenesis, neurite outgrowth, synaptogenesis, myelination, electrical efficiency, and neurotransmitter concentration which affects cognitive development.*

**Objective :** *To identify the association between protein intake and cognitive development in children aged 7-24 months old using Capute scales method.*

**Method :** *This study was an observational analytic with cross-sectional study. The sampling technique was total sampling. Seventy one children aged 7-24 months old in Rempoah Village, Banyumas District were included in the study. Protein intake data were obtained from 4x24 hours food recall interview for children aged 7-11 months old and 3x24 hours for children aged 12-24 months old. Cognitive development data were measured by Capute scale examination.*

**Result :** *There was a significant association between protein intake and cognitive development in children aged 7-24 months old (OR=5.133; 95% CI=1.044-25.229;  $p < 0.05$ ).*

**Conclusion :** *There is an association between protein intake and cognitive development in children aged 7-24 months old. Children aged 7-24 months old who have inadequate protein intake are at a risk of having cognitive developmental delay 5.133 times greater than children aged 7-24 months old who have adequate protein intake.*

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**Keywords:** *Capute scales, cognitive development, protein intake*