Status besi siswa sekolah dasar negeri di jakarta: hubungan dengan status gizi dan asupan diet, studi kasus di sd Negeri Pegangsaan 01 Jakarta Pusat = Iron status of primary School Students in Jakarta relationship with nutritional status and dietary intake : a case study in Pegangsaan 01 Public School Central Jakarta

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Abstrak

ABSTRAK
Latar belakang : Sebanyak 70% dari anemia pada anak merupakan anemia mikrositik hipokrom, dan yang terbanyak adalah anemia defisiensi besi (ADB). Anemia defisiensi besi pada anak sekolah berkaitan dengan penurunan prestasi belajar. Anak dengan masalah nutrisi berisiko mengalami defisiensi besi. Asupan zat besi, pemacu dan penghambat absorpsi besi memengaruhi kadar besi. Sekolah dasar (SD) Pegangsaan 01 Jakarta Pusat merupakan sekolah negeri dengan mayoritas siswa berasal dari sosial ekonomi rendah.
Tujuan : Mengetahui status besi pada anak usia 6-12 tahun serta hubungannya dengan status gizi dan asupan diet.
Metode : Studi potong lintang dilakukan di SD Negeri Pegangsaan 01, Jakarta Pusat antara bulan Maret-April 2016. Asupan pemacu absorpsi zat besi (vitamin C) dan penghambat (fitat, teh, kopi, susu) dinilai dengan food record selama tiga hari, diolah dengan NutriSurvey®. Darah tepi lengkap, feritin, besi serum, total iron binding capacity (TIBC), saturasi transferin, dan high sensitivity C-reactive protein (hs-CRP) diperiksakan di laboratorium.
Hasil : Terdapat 115 subyek berpartisipasi dalam penelitian. Prevalens deplesi besi sebesar 4,3%, defisiensi besi tanpa anemia sebesar 14,8%, ADB sebesar 1,7%. Tidak terbukti ada hubungan antara status gizi kurang dengan status besi [p=0,094; OR=2,29(0,86-6,10)], gizi lebih dan obesitas dengan status besi [p=0,050; OR=0,30(0,09-1,00)], asupan besi total dengan status besi (p=0,260), vitamin C dengan status besi (p=0,740), fitat dengan status besi (p=0,901), teh dengan status besi (p=0,931), kopi dengan status besi (p=0,624), dan susu dengan status besi (p=0,277).
Simpulan : Prevalens deplesi besi, defisiensi besi tanpa anemia, dan ADB pada anak usia 6-12 tahun berturut-turut adalah 4,3%, 14,8%, dan 1,7%. Tidak terbukti ada hubungan antara status gizi, asupan zat besi, vitamin C, fitat, teh, kopi, dan susu dengan status besi pada anak usia 6-12 tahun.
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ABSTRACT
Background : Prevalence of anemia in Indonesian school-age children is high. Approximately 70% cases are microcytic hypochromic anemia which iron deficiency anemia (IDA) are the most frequent. Iron deficiency anemia associated with decreased learning achievement. Children with nutritional problems at risk

for iron deficiency. Intake of enhancer and inhibitor of iron absorption affects iron body level. Pegangsaan 01 Public School is primary school in Central Jakarta, which most of the students come from low socioeconomic family.
Objective: To measure iron status in children aged 6-12 years and its relationship with nutritional status and dietary intake.
Methods: A cross-sectional study was conducted in Pegangsaan 01 Primary School, Central Jakarta, on March-April 2016. Dietary iron enhancer (vitamin C) and inhibitor (phytate, tea, coffee, milk) were obtained using a 3-days food record and analyzed with NutriSurvey®. Complete blood count, ferritin, serum iron, total iron binding capacity, transferrin saturation and high sensitivity C-reactive protein were examined.
Results: A total of 115 children were studied. Prevalence of iron depletion, iron deficiency without anemia, and iron deficiency anemia were 4,3%, 14,8%, and 1,7% respectively. No evidence of relationship between undernourished and iron status (p=0,094), overweight-obesity and iron status (p=0,050), iron intake and iron status (p=0,260), vitamin C and iron status (p=0,740), phytate and iron status (p=0,901), tea and iron status (p=0,931), coffee and iron status (p=0,624), milk and iron status (p=0,277).
Conclusion: Prevalence of iron depletion, iron deficiency without anemia and iron deficiency anemia in children aged 6-12 years were 4,3%, 14,8%, and 1,7% respectively. No evidence of relationship between nutritional status, dietary intake and iron status