



## ABSTRAK

UNIVERSITAS ESA UNGGUL  
FAKULTAS ILMU-ILMU KESEHATAN  
PROGRAM STUDI ILMU GIZI  
SKRIPSI, MARET 2017

JUMIATI UTARI

### **HUBUNGAN ASUPAN ENERGI, PROTEIN DAN ZAT GIZI MIKRO DENGAN KADAR HEMOGLOBIN IBU HAMIL DI PUSKESMAS KECAMATAN KEBON JERUK**

xviii, VI Bab, 76 Halaman, 29 Tabel, 2 Gambar

**Latar Belakang :** Kadar hemoglobin (Hb) yang rendah mengindikasikan anemia. Ibu hamil trimester III anemia dikarenakan perubahan sirkulasi yang makin meningkat terhadap plasenta. Kurang gizi diperiode ini akan menghambat pertumbuhan yang tidak dapat diperbaiki dimasa kehidupan selanjutnya.

**Tujuan :** mengetahui hubungan asupan energi, protein dan zat gizi mikro dengan kadar hemoglobin ibu hamil di Puskesmas Kecamatan Kebon Jeruk.

**Metode :** Design penelitian *cross sectional*, sampel ibu hamil trimester III sebanyak 61 orang dipilih berdasarkan *purposive sampling*. Kadar hemoglobin diukur dengan metode *hemocue*. Asupan energi dan protein diukur dengan *recall* 2x24 jam, asupan zat besi, asam folat, vitamin B<sub>12</sub>, vitamin C dan kalsium diukur dengan *semi-quantitative food frequency questionnaire* (SQ-FFQ). Analisis bivariat menggunakan korelasi dan analisis multivariat menggunakan regresi linier berganda. **Hasil :** Rata-rata kadar hemoglobin 11.60g/dL, rata-rata asupan dibandingkan AKG yaitu energi 1436.42 kkal (56.3%), protein 53.56 g (70%), zat besi 19.95 mg (52.5%), asam folat 545.4 mcg (91%), vitamin B<sub>12</sub> 4.95 mcg (190%), vitamin C 174.53 g (205%), kalsium 704.16 mg (56.3%). Uji Bivariat didapatkan hubungan asupan energi (p=0.0001), protein (p=0.0001), zat besi (p=0.0001), asam folat (p=0.0001), vitamin B<sub>12</sub> (p=0.001) dan kalsium (p=0.002), sedangkan asupan vitamin C (p=0.213). Variabel yang paling berhubungan dengan kadar hemoglobin yaitu asupan energi (p=0.010,  $\beta=0,390$ ), artinya setiap kenaikan asupan energi sebesar 1 kkal akan meningkatkan kadar hemoglobin sebesar 0,390 g/dL.

**Kesimpulan :** Terdapat hubungan antara energi, protein, zat besi, asam folat, vitamin B<sub>12</sub> dan kalsium dengan kadar hemoglobin pada ibu hamil, tetapi tidak dengan asupan vitamin C.

**Kata kunci :** kadar hemoglobin, asupan energi, protein, zat gizi mikro.

**Daftar bacaan :** 57 (2003 – 2016)



## ABSTRACT

ESA UNGGUL UNIVERSITY  
THE FACULTY OF HEALTH SCIENCES  
NUTRITIONAL SCIENCE COURSES  
UNDERGRADUATE THESIS, MARCH 2017

JUMIATI UTARI

### **CORRELATION OF ENERGY INTAKE, PROTEIN AND MICRONUTRIENTS WITH HEMOGLOBIN LEVELS OF PREGNANT WOMEN IN PUSKESMAS KECAMATAN KEBON JERUK**

xviii, VI Chapters, 76 Pages, 29 Tables, 2 Pictures

**Background:** Low hemoglobin level can indicate anemia. Pregnant women of third trimester suffer from anemia due to changes in the circulation increasing the placenta. Pregnant women need adequate nutrition. Malnutrition in this period will inhibit the growth that can not be rectified in the future.

**Objective:** know the relationship intake of energy, protein and micronutrients with hemoglobin levels of pregnant women in Puskesmas Kecamatan Kebon Jeruk.

**Methods:** cross-sectional study design, the sample consisted third trimester pregnant women as much as 61 people were selected by purposive sampling. Hemoglobin levels measured by the hemocue method. Energy and protein intake measured by recall 2x24 hours, the intake of iron, folic acid, vitamin B12, vitamin C and calcium measured by semi-quantitative food frequency questionnaire (SQ-FFQ). The bivariate analysis used the Pearson Product Moment and multivariate test used Multiple Linear Regression.

**Results:** Mean hemoglobin levels 11.60g / dL, the average compared AKG: energy 1436.42 kcal (56.3%), protein 53.56 g (70%), iron 19.95 mg (52.5%), folic acid 545.4 mcg (91%), vitamin B12 4.95 mcg (190%), 174.53 g of vitamin C (205%), 704.16 mg calcium (56.3%). Bivariate test found energy intake ( $p=0.0001$ ), protein ( $p=0.0001$ ), iron ( $p=0.0001$ ), folic acid ( $p=0.0001$ ), vitamin B12 ( $p=0.001$ ) and calcium ( $p=0.002$ ), while the intake of vitamin C ( $p=0.213$ ). Multivariate analysis found the variables most associated with hemoglobin levels was energy intake ( $p=0.010$ ,  $\beta=0.390$ ), increased in energy intake of 1 kcal will increased the hemoglobin level of 0.390 g/ dL.

**Conclusion:** Significant correlation between energy, protein, iron, folic acid, calcium with vitamin B12 levels of hemoglobin in pregnant women, but not with the intake of vitamin C.

**Keywords:** hemoglobin level, intake of energy, protein, micronutrient

**The reading list:** 57 (2003 - 2016)