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## HUBUNGAN ANTARA ASUPAN ZAT BESI DENGAN KEJADIAN ANEMIA PADA REMAJA PUTRI DI SMK N 1 KLEGO KABUPATEN BOYOLALI

### *ABSTRAK*

**Latar belakang:** Anemia merupakan salah satu masalah kesehatan utama yang banyak dialami oleh remaja perempuan, terutama akibat defisiensi zat besi. Berdasarkan data awal di SMK N 1 Klego Kabupaten Boyolali, diketahui prevalensi anemia mencapai 43,1% pada siswi usia 13–15 tahun. Kondisi ini berdampak buruk terhadap konsentrasi belajar, daya tahan tubuh, dan kesehatan reproduksi remaja di masa mendatang.

**Tujuan:** Penelitian ini bertujuan untuk mengetahui hubungan antara asupan zat besi dengan kejadian anemia pada remaja putri di SMK N 1 Klego Kabupaten Boyolali.

**Metode:** Penelitian ini menggunakan pendekatan kuantitatif dengan desain analitik korelasional dan metode *cross sectional*. Sampel penelitian berjumlah 88 siswi kelas 10 yang dipilih secara *simple random sampling*. Pengukuran asupan zat besi dilakukan dengan metode *food recall 2x24 jam* dan dianalisis menggunakan aplikasi *Multiple Source Method* (MSM), kemudian dibandingkan dengan nilai Estimated Average Requirement (EAR). Status anemia diukur menggunakan alat Easy Touch GCHB dengan batas kadar hemoglobin <12 g/dl menurut standar Kemenkes RI. Analisis data secara univariat dan bivariat dengan menggunakan uji Kendall Tau dengan tingkat signifikansi 5% ( $\alpha=0.05$ ).

**Hasil:** Asupan zat besi responden yaitu rata-rata 5.06 mg termasuk dalam kategori beresiko dan kadar hemoglobin responden yaitu rata-rata 12.59 g/dl termasuk dalam kategori tidak anemia. Analisis bivariat menunjukkan bahwa adanya hubungan yang signifikan antara konsumsi zat besi dengan kejadian anemia di SMK N1 Klego Kab.Boyolali (nilai  $p = 0,008$ )

**Kesimpulan:** Terdapat hubungan yang signifikan antara asupan zat besi dengan kejadian anemia pada remaja putri di SMK N 1 Klego Kabupaten Boyolali.

**Kata kunci:** asupan zat besi, anemia, remaja

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## **THE RELATIONSHIP BETWEEN IRON INTAKE AND THE INCIDENCE OF ANEMIA IN FEMALE ADOLESCENTS AT SMK N 1 KLEGO, BOYOLALI REGENCY**

### **ABSTRACT**

**Background:** Anemia is one of the major health problems frequently experienced by female adolescents, mainly due to iron deficiency. Preliminary data at SMK N 1 Klego, Boyolali Regency, showed that the prevalence of anemia among female students aged 13–15 years reached 43.1%. This condition negatively impacts learning concentration, immune function, and future reproductive health.

**Objective:** This study aimed to determine the relationship between iron intake and the incidence of anemia among female adolescents at SMK N 1 Klego, Boyolali Regency.

**Methods:** This research used a quantitative approach with a correlational analytic design and a cross-sectional method. A total of 88 tenth-grade female students were selected through simple random sampling. Iron intake was measured using a 2x24-hour food recall method and analyzed with the Multiple Source Method (MSM), then compared to the Estimated Average Requirement (EAR). Anemia status was determined using the Easy Touch GCHB device, with a hemoglobin threshold of <12 g/dL based on the Indonesian Ministry of Health standard. Data were analyzed univariately and bivariately using the Kendall Tau test with a significance level of 5% ( $\alpha = 0.05$ ).

**Results:** The average iron intake among respondents was 5.06 mg, categorized as at risk, while the average hemoglobin level was 12.59 g/dL, categorized as non-anemic. Bivariate analysis showed a significant relationship between iron intake and the incidence of anemia at SMK N 1 Klego, Boyolali Regency ( $p = 0.008$ ).

**Conclusion:** There is a significant relationship between iron intake and the incidence of anemia among female adolescents at SMK N 1 Klego, Boyolali Regency.

**Keywords:** iron intake, anemia, female adolescents