

**FAKULTAS ILMU KESEHATAN
UNIVERSITAS SILIWANGI
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ABSTRAK

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**HUBUNGAN ASUPAN ZAT BESI, VITAMIN C DAN KEBIASAAN
KONSUMSI PANGAN SUMBER TANIN DENGAN KADAR
HEMOGLOBIN PADA REMAJA PUTRI (Studi *Cross Sectional* di SMPN 1
Rajapolah Kabupaten Tasikmalaya Tahun 2026)**

Anemia pada remaja putri masih menjadi masalah kesehatan yang berkaitan dengan asupan zat gizi, khususnya zat besi, vitamin C, serta konsumsi *inhibitor* seperti tanin. Zat besi berperan dalam pembentukan hemoglobin, sedangkan vitamin C meningkatkan absorpsi besi dan tanin dapat menghambatnya. Penelitian ini bertujuan untuk menganalisis hubungan asupan zat besi, vitamin C, dan kebiasaan konsumsi pangan sumber tanin dengan kadar hemoglobin pada remaja putri di SMPN 1 Rajapolah. Penelitian ini menggunakan desain observasional dengan pendekatan *cross sectional* pada 73 siswi kelas VIII. Data asupan zat besi dan vitamin C dikumpulkan menggunakan SQ-FFQ dan frekuensi konsumsi pangan sumber tanin dikumpulkan menggunakan FFQ melalui wawancara, serta pengukuran kadar hemoglobin menggunakan alat *Easy Touch* GCHb. Analisis data dilakukan secara univariat dan bivariat menggunakan uji *Spearman Rank*. Hasil penelitian menunjukkan rata-rata kadar hemoglobin sebesar 12,2 g/dL dengan 41,1% responden mengalami anemia. Rerata asupan zat besi 8,4 gr, rerata asupan vitamin C 44,6 mg. Rerata skor frekuensi kebiasaan konsumsi pangan sumber tanin 74 dan rerata kepatuhan mengonsumsi TTD 0,00 (tidak mengonsumsi). Terdapat hubungan antara asupan zat besi dengan kadar hemoglobin ($p=0,007$; $p=0,316$), sedangkan asupan vitamin C ($p=0,520$), konsumsi tanin ($p=0,998$), dan kepatuhan TTD ($p=0,639$) tidak berhubungan. Disimpulkan bahwa asupan zat besi berhubungan dengan kadar hemoglobin, sementara variabel lainnya tidak menunjukkan hubungan yang signifikan. Remaja putri diharapkan dapat mengonsumsi sumber zat besi sesuai dengan angka kecukupan gizi per hari serta memperhatikan konsumsi enhancer dan inhibitor zat besi.

Kata kunci: zat besi, vitamin C, tanin, hemoglobin, remaja putri

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ABSTRACT

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THE RELATIONSHIP BETWEEN IRON AND VITAMIN C INTAKE AND THE CONSUMPTION OF TANNIN-CONTAINING FOODS WITH HEMOGLOBIN LEVELS IN ADOLESCENT GIRLS (A Cross-Sectional Study at SMPN 1 Rajapolah, Tasikmalaya Regency, 2026)

Anaemia in adolescent girls remains a health issue related to nutrient intake, particularly iron, vitamin C, and the consumption of inhibitors such as tannins. Iron plays a role in hemoglobin formation, while vitamin C enhances iron absorption and tannins can inhibit it. This study aims to analyze the relationship between iron and vitamin C intake and dietary habits involving tannin-rich foods with hemoglobin levels in adolescent girls at SMPN 1 Rajapolah. This study employed an observational design with a cross-sectional approach involving 73 eighth-grade female students. Data on iron and vitamin C intake were collected using the SQ-FFQ, and the frequency of consumption of tannin-containing foods was collected using the FFQ through interviews, while hemoglobin levels were measured using the Easy Touch GCHb device. Data analysis was conducted using univariate and bivariate methods with the Spearman Rank test. The results showed an average hemoglobin level of 12.2 g/dL, with 41.1% of respondents suffering from anaemia. The mean iron intake was 8.4 g, and the mean vitamin C intake was 44.6 mg. The mean frequency score for the habit of consuming tannin-rich foods was 74, and the mean compliance with iron supplement consumption was 0.00 (no consumption). There was a relationship between iron intake and hemoglobin levels ($p=0.007$; $\rho=0.316$), whereas vitamin C intake ($p=0.520$), tannin consumption ($p=0.998$), and iron supplement compliance ($p=0.639$) were not associated. It was concluded that iron intake is associated with hemoglobin levels, while other variables did not show a significant association. Adolescent girls are encouraged to consume iron-rich foods in accordance with the recommended daily intake and to be mindful of their consumption of iron enhancers and inhibitors.

Keywords: iron, vitamin C, tannins, haemoglobin, adolescent girls