Hubungan Konsumsi Protein, Zat Besi, Vitamin C, dan Tanin Terhadap Kejadian Anemia Pada Mahasiswi di Kabupaten Jember (The Relationship between Protein, Iron, Vitamin C, and Tannin Consumption and the Occurrence of Anemia in Female University Students in Jember Regency)

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ABSTRACT

Anemia is a condition in which the body has a lower than normal level of hemoglobin (Hb), which is <12 g/dl. Protein plays a crucial role in the formation of red blood cells and hemoglobin. Iron plays an important role in hemoglobin synthesis. Vitamin C helps improve the absorption of nonheme iron in the human body and aids in increasing hemoglobin levels. Tannins can inhibit iron absorption by binding to it. The objective of this study was to determine the relationship between protein consumption, iron, vitamin C, and tannin intake, and the occurrence of anemia among female students in Jember Regency. The study was conducted at Universitas Muhmmadiyah Jember, STIE Mandala, Poltekes Kemenkes Malang, and Politeknik Negeri Jember, with a sample size of 67 subjects selected using multistage random sampling. This study employed an analytical observational design with a cross-sectional approach. Data were collected using questionnaires, SQ FFQ, and blood samples were taken using an easy touch GCHB device. Statistical analysis was performed using SPSSv.16 with Fisher's exact test. The results showed that 19.4% of the female students had anemia. The Fisher's exact test analysis indicated no significant relationship between protein consumption and the occurrence of anemia (p=1.000). There was also no significant relationship between iron consumption and the occurrence of anemia (p=1.000). Similarly, there was no significant relationship between vitamin C consumption and the occurrence of anemia (p=0.342). However, there was a significant relationship between tannin consumption and the occurrence of anemia (p=0.094). In conclusion, there was no relationship between protein, iron, and vitamin C consumption, but there was a relationship between tannin consumption and the occurrence of anemia among female students in Jember Regency.

Keyword: Anemia, Protein, Iron, Vitamin C, and Tannin