

## ABSTRAK

Reni Susanti

EFEKTIVITAS PEMBERIAN TABLET TAMBAH DARAH TERHADAP  
KADAR HEMOGLOBIN PADA SISWI MAN 3 MAGETAN

xiv + 56 halaman + 11 tabel + 12 lampiran

Kekurangan zat besi yang menyebabkan anemia merupakan salah satu permasalahan gizi yang kerap ditemukan pada remaja putri, terutama di negara-negara berkembang seperti Indonesia. Gangguan ini tidak hanya berdampak pada kondisi fisik, tetapi juga dapat mengurangi fokus belajar serta prestasi akademik. Sebagai bentuk upaya preventif, pemerintah Indonesia telah menginisiasi program distribusi tablet zat besi (TTD) di lingkungan sekolah. Studi ini bertujuan untuk menilai efektivitas program tersebut guna meningkatkan kadar hemoglobin pada siswi kelas X di MAN 3 Magetan.

Studi ini memakai desain kuasi-eksperimen dengan pendekatan *one group pre-test and post-test*. Jumlah partisipan terdiri dari 122 siswi yang memenuhi kriteria inklusi, yakni remaja berusia 15–18 tahun yang aktif bersekolah, memperoleh izin dari orang tua/wali untuk berpartisipasi pada studi (*informed consent*), serta bersedia mengikuti seluruh tahapan intervensi, termasuk mengonsumsi tablet zat besi sesuai jadwal dan menjalani pemeriksaan hemoglobin. Intervensi berupa pemberian tablet zat besi dilakukan setiap minggu selama periode tiga bulan. Pengukuran kadar hemoglobin dilakukan sebelum dan sesudah intervensi dengan memakai perangkat HemoCue.

Data yang diperoleh dianalisis memakai uji Wilcoxon Signed-Rank karena distribusi data tidak normal. Hasil analisis menunjukkan adanya peningkatan signifikan pada kadar hemoglobin pasca intervensi. Sebelum pemberian suplemen, tercatat jika 39% siswi mengalami anemia. Namun, setelah tiga bulan intervensi, angka tersebut menurun drastis menjadi 8%, sementara 92% siswi menunjukkan kadar hemoglobin yang berada pada rentang normal. Nilai signifikansi statistik  $p < 0,05$  mengindikasikan adanya perbedaan yang bermakna antara sebelum dan sesudah intervensi. Hal ini membuktikan jika pemberian tablet zat besi secara teratur efektif guna menaikkan kadar hemoglobin dan menurunkan prevalensi anemia di kalangan siswi MAN 3 Magetan. Oleh karena itu, pelaksanaan program ini perlu dilanjutkan secara konsisten, disertai edukasi gizi dan pemantauan kepatuhan konsumsi untuk menjamin keberhasilan jangka panjang.

Kata Kunci: anemia, tablet tambah darah, hemoglobin, remaja putri, intervensi gizi sekolah

## **ABSTRACT**

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*EFFECTIVENESS OF GIVING BLOOD SUPPLEMENT TABLETS ON HEMOGLOBIN LEVELS IN STUDENTS AT MAN 3 MAGETAN*

*xiv + 56 pages + 11 tables + 12 appendices*

*Iron deficiency, which causes anemia, is a common nutritional problem among adolescent girls, especially in developing countries like Indonesia. This disorder not only impacts physical health but can also reduce focus and academic achievement. As a preventative measure, the Indonesian government has initiated a program to distribute iron tablets (TTD) in schools. This study aims to assess the program's effectiveness in increasing hemoglobin levels in 10th-grade female students at MAN 3 Magetan.*

*This study used a quasi-experimental design with a one-group pre-test and post-test approach. Participants were 122 female students who met the inclusion criteria: adolescents aged 15–18 who were actively attending school, had obtained informed consent from their parents/guardians, and were willing to participate in all stages of the intervention, including taking iron tablets as scheduled and undergoing hemoglobin testing. The intervention, which consisted of iron tablet administration, was administered weekly for a three-month period. Hemoglobin levels were measured before and after the intervention using a HemoCue device.*

*The data obtained were analyzed using the Wilcoxon Signed-Rank test due to non-normal distribution. The analysis results showed a significant increase in hemoglobin levels after the intervention. Before supplementation, 39% of female students were anemic. However, after three months of intervention, this figure decreased drastically to 8%, while 92% of female students showed hemoglobin levels within the normal range. A statistical significance value of  $p < 0.05$  indicates a significant difference between before and after the intervention. This proves that regular administration of iron tablets is effective in increasing hemoglobin levels and reducing the prevalence of anemia among female students at MAN 3 Magetan. Therefore, the implementation of this program needs to be continued consistently, accompanied by nutritional education and monitoring of consumption compliance to ensure long-term success.*

*Keywords: anemia, iron tablets, hemoglobin, adolescent girls, school-based intervention, nutritional supplementation*