

# EFFECT OF “REMATRI” HEALTH CARD ON KNOWLEDGE, BODY MASS INDEX, ENERGY, PROTEIN, AND IRON TABLET CONSUMPTION AMONG FEMALE ADOLESCENTS IN MALANG, EAST JAVA

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## ABSTRACT

**Background:** Anemia in female adolescents is a nutritional problem in developing countries, including Indonesia. Anemia is a condition in which the number of red blood cells is insufficient to meet the body's physiologic needs. The result of Indonesia Basic Health Research (Riskesdas) on 2013 showed the proportion of anemia among population aged 5-14 years was 26.4%. Most of the previous study reported that causes of anemia in female adolescents were low nutrient intake and lack of knowledge. This study aimed to examine the effect of Rematri Health Card on knowledge, body mass index (BMI), energy, protein, iron tablet consumptions among female adolescents in Malang, East Java.

**Subjects and Method:** This was a quasi-experiment one group pre-test and post-test design. This study was conducted at Ngajum Junior High School Malang, East Java. A total sample of 130 female students was selected for this study. The dependent variables were nutritional knowledge, BMI, energy, protein, and iron tablet consumptions. The independent variable was Rematri Health Card. The data were collected by questionnaire and analyzed by paired t test.

**Results:** Knowledge was higher after intervention (Mean= 91.75) than before intervention (Mean= 62.09), and it was statistically significant ( $p \leq 0.001$ ). Energy consumption was lower after intervention (Mean= 1.040) than before (Mean= 951), and it was statistically significant ( $p = 0.009$ ). Protein consumption was higher after intervention (Mean= 22.94) than before (Mean= 3.18), and it was statistically significant ( $p \leq 0.001$ ). Iron tablet consumption was higher after intervention (Mean= 3.18) than before (Mean= 0.24), and it was statistically significant ( $p \leq 0.001$ ). BMI was lower after intervention (Mean= 20.09) than before (Mean= 20.16), but it was not statistically significant ( $p = 0.179$ ).

**Conclusion:** Rematri Health Card is effective on increasing knowledge and iron tablet consumption among female adolescents in Malang, East Java.

**Keywords:** rematri health card, anemia, iron tablet, nutritional knowledge, body mass index, energy, protein

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