

**RELATIONSHIP BETWEEN MIDDLE UPPER ARM
CIRCUMFERENCE AND HEMOGLOBIN LEVEL AMONG PREGNANT
MOTHERS AT GAMBIRSARI COMMUNITY HEALTH CENTER,
SURAKARTA, CENTRAL JAVA**

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ABSTRACT

Background: Anemia in pregnancy is associated with higher risk of low birth weight and both maternal and perinatal mortality. Previous studies showed that iron deficiency was the cause of about half of anemia cases. Mid-upper arm circumference (MUAC) was used as a measure of nutritional status. MUAC less than 23 cm was classified as low MUAC. This study aimed to determine the relationship between MUAC and hemoglobin level among pregnant mothers.

Subjects and Method: This was a cross-sectional study conducted at Gambirsari Community Health Center, Surakarta, Central Java, from January to December 2018. A sample of 35 pregnant mothers was selected for this study. The dependent variable was hemoglobin level (measured in g/dL unit). The independent variable was MUAC (measured in cm unit). The correlation between variables was measured by Pearson correlation.

Result: MUAC (in cm) of pregnant mothers had Mean= 21.25 and SD= 1.37. Hemoglobin (in g/dL) had Mean= 10.83 and SD= 1.16. MUAC was correlated with hemoglobin, and it was statistically significant ($r = 0.40$; $p = 0.015$).

Conclusion: MUAC is correlated with hemoglobin level of pregnant women.

Keywords: MUAC, hemoglobin level, pregnant women.

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