THE CORRELATIONS BETWEEN CARBOHYDRATE INTAKE, NUTRITIONAL STATUS OF PREGNANT WOMAN, AND BIRTH WEIGHT IN JEMBER, EAST JAVA

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ABSTRACT

Background: During pregnancy, physiological and metabolic functions changed to a great extent. Pregnant women need adequate energy and nutrients to meet the increased nutritional demand for growth of the fetus and to satisfy the increased body demand of the mother. However, the association between maternal nutritional factors and birth weight is complex and is not well characterized. This study aimed to determine the correlations between carbohydrate intake, nutritional status of pregnant woman, and infant birth weight.

Subjects and Method: A cohort study was carried out at community health centers in Jember, East Java, from April to June 2019. A sample of 120 pregnant women was selected by simple random sampling. The dependent variable was birth weight. The independent variables were carbohydrate intake and maternal nutritional status. The data were collected by maternal and child health book and questionnaire. The data were analyzed by a multiple linear regression.

Results: Infant birth weight increased with adequate carbohydrate intake ($b = 33.25$; 95% CI = 19.03 to 47.47; $p < 0.001$) and good maternal nutritional status ($b = 0.64$; 95% CI = -0.26 to 1.54; $p = 0.160$).

Conclusion: Infant birth weight increases with adequate carbohydrate intake and good maternal nutrition status.

Keywords: birth weight, carbohydrate intake, maternal nutrition status

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