

MATERNAL AGE, HISTORY OF DISEASE, NUTRITIONAL STATUS IN PREGNANCY, AND THEIR ASSOCIATION WITH LOW BIRTH-WEIGHT IN AISIYAH HOSPITAL, KUDUS, CENTRAL JAVA

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ABSTRACT

BACKGROUND: Low Birth Weight (LBW) is a risk factor for diabetes mellitus and coronary heart disease in adult. The incidence of LBW remained high in Indonesia. Deleterious bio-psychosocial exposure during the gestation period may have negative impact on birth-weight. This study aimed to determine the association between maternal age, history of disease, nutritional status in pregnancy, and low birth weight.

SUBJECT AND METHODS: This was a cross-sectional study conducted in Kudus district, Central Java. A sample of 59 new-born babies was selected from Aisiyah Hospital for this study. The dependent variable was birth-weight. The independent variables were maternal age, history of disease, and nutritional status. Maternal age and history of disease were measured by questionnaire. Nutritional status during pregnancy was measured anthropometry. Bivariate analysis involving Odds Ratio and Chi Square test was used to analyze the data.

RESULTS: Maternal age <20 years or ≥35 years old increased the risk of delivering LBW infants 1.24 times as many as maternal age between 20 and 35 years old, although it was not statistically significant (OR=1.24; 95%CI=0.28 to 5.42; p=0.775). Pregnant mother with history of disease had the risk of delivering LBW infants 4 times as many as pregnant mother without history of disease, and it was marginally significant (OR=4.00; 95%CI=0.89 to 17.87; p=0.057). Pregnant mother with protein energy malnutrition had the risk of delivering LBW infants 7.5 times as many as pregnant mother without protein energy malnutrition and it was statistically significant (OR=7.53; 95%CI=1.43 to 39.49; p=0.008).

CONCLUSION: History of disease and protein energy malnutrition during pregnancy are risk factors for delivering LBW infants.

Keywords: low birth-weight, age, history of disease, nutritional status