

The Relationship Between Energy, Protein, and Anemia Adequacy Levels and the Incidence of Low Birth Weight (LBW) at the Juata Community Health Center in Tarakan City

ABSTRACT

Background: Low birth weight (LBW) is a sign of stunting, which can occur when a mother experiences prolonged energy and protein deficiencies and anemia during pregnancy, potentially affecting a child's growth. WHO data shows that Indonesia ranks ninth in the world with a LBW percentage of more than 15.5% of the total number of births each year, and this occurs in the Juata area, Tarakan City, North Kalimantan.

Objective: To determine the relationship between Energy Adequacy Level, Protein Adequacy Level, and Anemia Level with the incidence of LBW in the working area of the Juata Community Health Center, Tarakan City.

Method: This study used a quantitative approach with a cross-sectional design. A sample of 75 respondents was selected using the Slovin formula. Data were collected through a questionnaire, FFQ (Food Frequency Questionnaire). Data analysis was performed univariately and bivariately using the Fisher's Exact test.

Results: There was a significant relationship between energy intake and LBW ($p = 0.017$), between protein intake and LBW ($p = 0.027$) and between anemia and LBW ($p = 0.000$).

Conclusion: Energy intake: 49% of respondents obtained normal energy intake, Protein intake: 48% of respondents obtained protein intake in the mild deficit category, anemia picture for mothers giving birth: 88% of respondents did not experience anemia, low birth weight picture: 88% of respondents had normal body weight.

Keywords: energy intake, protein intake, anemia, LBW