

META ANALYSIS THE EFFECT OF EXCESSIVE WEIGHT GAIN IN PREGNANT WOMEN ON LOW BIRTH WEIGHT INFANTS

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ABSTRACT

Background: Weight gain during pregnancy, among the important indicators of pregnancy maternal nutrition, is also a good measure of intra-uterine fetal nutrition. Whether maternal overweight and obesity is associated with increased, decreased, or neutral risks of low birth weight has been debated in the literature, with the uncertainty opinion on obesity in pregnancy. This study sought to clarify the impact of excessive weight gain in pregnant women on low birth weight infants.

Subject and Method: This was a systematic review and meta-analysis study using a PRISMA diagram. Article searches are conducted based on eligibility criteria using the PICO Model. Population: nulliparous pregnant women, Intervention: excessive weight gain, Comparison: normal weight gain, and Outcome: low birth weight. The articles used are from Pubmed, Google Scholar, Science Direct, and Scopus databases. The article search keywords are "Maternal" AND "Gestational Weight Gain" AND "Infant Output" OR "Low Birth Weight". The inclusion criteria were full text, cohort study, and reported adjusted Odds Ratio. Meta analysis conducted by Review Manager 5.3.

Results: There were 9 articles reviewed from China, Taiwan, Indonesia, South Korea, and Nigeria. The results showed that an excessive weight gain in pregnant women can reduced the risk of low birth weight in infants 0.69 times (aOR = 0.69; 95% CI= 10.54 to 0.86; p<0.001).

Conclusion: Excessive weight gain during pregnancy reduce the risk of low birth weight in infants.

Keywords: pregnant women, gestational weight gain, low birth weight.

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