

Thesis Title Pattern of Maternal Weight Gain during
Pregnancy and Preterm Delivery

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Abstract

A study is aimed to determine the association of maternal weight gain during pregnancy and gestational age , pattern of maternal weight gain in a group of women delivered of infants with normal gestational age and a group of women delivered of infants with shortened gestation . A case -control study consists of 93 mothers of preterm delivery and 197 mothers of term delivery from Ramathibodi Hospital during the year 1993 .

The maternal sociodemographic characteristics, history of antenatal care and pregnancy outcomes were reviewed from medical records. The results of the study show that more mothers among the preterm group are of the younger age, in lower educational level, with unlicensed marriage, and in employee occupation than the term group. There is a statistically significant difference between maternal marital status, education, occupation and preterm delivery ($p < 0.05, 0.001$ and 0.05 respectively). Infant birth weight and placenta weight also show statistical difference between the two groups ($p < 0.001$).

The pregnancy weight gain in both groups are substantially increased from the second trimester to delivery but the preterm group seems to gain weight less than the term. The association of maternal weight gain during pregnancy and the gestational age are explained in terms of correlation coefficient. There is a correlation of maternal weight gain and the gestational age in both groups. The correlation coefficient for the term = 0.98 ($p < 0.01$) and for the preterm = 0.98 ($p < 0.01$).

The mean weight gain in the second trimester are 5.7 and 5.1 kg./wk. in the term and preterm group respectively, the difference of which is statistically significant ($t = 2.81, p = 0.03$). No significant difference is found between the mean weekly weight gain in the third trimester of the two groups.