

Thesis Title: Risk Factors of Low Birth Weight Babies: A Hospital-Based Case-Control Study in Rajavithi Hospital, Bangkok, from February 1st to April 1st 1995.

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Date of graduation **18 July B.E. 2538 (1995)**

Abstract

A hospital-based case-control study was conducted in Rajavithi Hospital, one of the public hospitals in Bangkok, Thailand, to determine the potential maternal risk factors affecting birth weight outcome. Four hundred and fifty four subjects were recruited into the study, 227 of which were assigned as cases. Mothers with low birth weight babies born during the study period i.e. from February 1st to April 1st 1995, were treated as cases whereas those with normal birth weight babies were recruited as controls.

Data were collected using questionnaire/interview by one trained nurse and some other information were collected from hospital records.

The process of analyses was performed using Stata statistical package and Epi Info epidemiological software.

The prevalence of low birth weight among the study subjects was 8.8%.

Eighteen variables were related to low birth weight deliveries after performing bivariate analysis. These were maternal age, marital status, education, occupation, family income, parity, age of first pregnancy, frequency of antenatal care, gestational age of first antenatal visit, gestational age at birth, previous history of low birth weight, previous history of neonatal death, maternal height, maternal weight gain, illness during pregnancy, smoking, duration of exposure to passive smoking, and alcohol consumption.

After performing multivariate analysis, eleven variables were found significant to be at increased risk of low birth weight deliveries at a significance level of 0.05 and a power of 80%: maternal age, marital status, family income, parity, frequency of antenatal care, gestational age at first antenatal visit, previous history of low birth weight, maternal weight gain, illness during pregnancy, smoking and duration of exposure to environmental tobacco smoke.

This study has pinpointed several preventable risk factors significantly associated with low birth weight. These were smoking, duration of exposure to passive smoking, maternal age, marital status, frequency of antenatal care, gestational age at first antenatal visit, maternal parity, maternal weight gain and illness during pregnancy. Some of them could be dealt with through improvements of the quality of antenatal care. Other issues, such as, reduction of smoking and passive smoking would have to be addressed through national campaigns and awareness raising in the population.