

13th International Educational Technology Conference

Maternal weight gain and correlation with birth weight infants

S. Lumbanraja^a, D. Lutan^a, I. Usman^{a,*}

Department of Obstetrics and Gynecology, Universitas Sumatera Utara, Medan, Indonesia

Abstract

Objective: Maternal weight gain affect the infant birth weight. Aim of this study was to describe maternal weight gain during all trimester of pregnancy and its correlation with the birth weight.

Methods: Pregnant women who got antenatal care in Adam Malik General Hospital and Sundari Hospital, underwent body weight measurement during routine examination at first, second and third trimester and also at delivery time at those hospital. Baby birth weight also measured after delivery.

Results: Maternal weight gain increased its peak point at the second and third trimester with overall total weight gain ranged at 5 – 20 kg during pregnancy. Baby birth on normal weight ranged at 2500 – 4000 grams (SD + 399,86). Maternal weight gain was more higher in the primi gravida group compared with multi and grandemulti gravida groups. There is correlation between maternal weight gain with baby birth weight with $p = 0,03$ ($p < 0,05$, CI 95%), even the correlation was weak.

Conclusion: Maternal weight gain in the second and third trimester showed statistically significance difference with baby birth weight. Adequate total maternal weight gain based on IOM recommendation considered for resulting a better outcome and better birthweight of the babies.

© 2013 The Authors. Published by Elsevier Ltd. Open access under [CC BY-NC-ND license](#).

Selection and peer-review under responsibility of The Association of Science, Education and Technology-TASET, Sakarya Universitesi, Turkey.

Keywords: Maternal weight, infant birth weight, body mass index

Introduction

The gestational period determine the quality of human resources and depend on the intra uterine condition. Healthy pregnant women with a good nutritional status certainly improves the outcome of baby. Low birth weight rate in developing countries were higher four

* Corresponding author.

E-mail address: apokrifmail@gmail.com

times than developed countries. More than 9 million babies die each year, 98% occur in developing countries and most of them caused by low birth weight. Therefore, optimal maternal weight gain is essential for better outcome.

In 1987, The Global Safe Motherhood Initiative was launched for improving the coverage of Antenatal Care and counseling around the world. This Program concentrated on Nutritional status and Maternal weight gain during pregnancy. Institute of Medicine (IOM) in 2009, issued a new revision of maternal weight gain recommendation from the earlier version of 1990 according to Body Mass Index (BMI) pre-pregnancy.

Aims of the present study were 1). To compare maternal weight gain in all trimester and total weight gain during pregnancy, 2). To evaluate the relationship between total maternal weight gain and infant birth weight.

Patients and Methods

Patients

Pregnant women who were getting ante natal care in Adam Malik General Hospital and Sundari Hospital between August 2012 and January 2013 were eligible for this study. All eligible patients were on delivery time got body weight measurement before and 24 hours after baby birth. And then, maternal weight gain during first, second, and third trimester were collected from the Antenatal record from outpatient care.

Statistical Analysis

All data were analyzed with the Statistical Package for the Social Sciences. Correlation between maternal weight gain and infant birth weight were computerized by using Pearson test. P values < 0,05 were considered significant.

Results

Patients Characteristics

104 eligible pregnant women were get ante natal care and delivered at Adam Malik General Hospital and Sundari Hospital in Medan.

Table 1 showed distribution of subject based on age, parity, pre-pregnancy body weight, height, body mass index and gestational age. As results, most of subjects were on 20-35 years with normoweight in body mass index. Most of them were on 38 weeks of gestational age.

Table 1

Patients Characteristics

	Total (n=104)
<i>Age (years)</i>	
<20	7 (6,7%)
20-35	84 (80,8%)
>35	13 (12,5%)

Download English Version:

<https://daneshyari.com/en/article/1117861>

Download Persian Version:

<https://daneshyari.com/article/1117861>

[Daneshyari.com](https://daneshyari.com)