

ABSTRACT

Introduction

Maternal weight gain during pregnancy is considered as a key determinant in early neonatal outcomes. The association between maternal booking visit body mass index (BMI), weight gain during pregnancy, and the resulting birth weight of infants and early neonatal outcomes were assessed in this study.

Method

An observational cross-sectional study was conducted with postnatal mothers in postnatal wards of Teaching Hospital Anuradhapura, Sri Lanka.

Results

Among 440 participants, 73.4% were unemployed and 93% were Sinhalese. The mean age was 28.45 years, with 72% having fewer than three pregnancies and in 80% parity was <3. At booking visits the prevalence of normal BMI was 52%. Mean birth weight was 2.98 kg, with intrauterine growth restriction present in 1.6%. PBU care was given for 4.1%. Only the parity of mothers had significant association for having PBU care ($P=0.031$). Maternal weight gain was significantly associated with age ($P < 0.001$), occupation ($P = 0.004$), gravidity (0.012), parity (0.006), children count (0.018) and diet history ($P=0.039$). A significant association was determined between maternal weight gain and past medical history, anemia, diet history, booking visit BMI, and birth weight ($P < 0.05$).

Conclusion

A significant association was not found between maternal weight gain during pregnancy and birth weight of the baby which warrants further studies. Maternal weight gain during pregnancy is determined by various factors. It is recommended that targeted interventions for pregnant women be implemented by healthcare providers to promote healthy weight gain and optimize neonatal outcomes.