

ABSTRACT

OBJECTIVES: The objectives were to determine the effect of maternal overweight and obesity on pregnancy and to determine the relationship between birth outcome and increasing BMI.

STUDY DESIGN: A prospective study was conducted. Between June 2012 and February 2013, 160 women attending their first antenatal clinic visit at the University Hospital of the West Indies were invited to participate in the study. Women with chronic illnesses prior to pregnancy and those with multiple gestation were excluded. The final number of women used for analysis was 126. The data collected included: maternal and paternal demographics, maternal socioeconomic status, past medical and obstetric history, maternal complications in pregnancy and during delivery and perinatal and neonatal outcomes, including birth anthropometry, Apgar scores and admissions to the Special Care Nursery/Neonatal Intensive Care Unit within the first 28 days of life. Descriptive statistics to report the means $\pm$ SD and the median with interquartile range was conducted. Analysis of Variance (ANOVA) was used to compare groups of means, Chi Squared Test to compare categorical variables and Student t Test to compare means between 2 groups.

RESULTS: Overweight and class I obese women did not have increased adverse antenatal, perinatal or neonatal outcomes when compared to their normal body mass index (BMI) counterparts. There were insufficient numbers of women with a BMI ≥ 35 to comment on outcomes in that group however, we found no difference in the rates of pregnancy induced hypertension, gestational diabetes mellitus or Caesarean delivery in the overweight and class I obese women as compared to women of normal BMI. Neonatal anthropometry, Apgar scores and rates of nursery admissions were also similar across BMI groups.

CONCLUSION: Overweight or class I obese women do not have an increased risk of adverse maternal and birth outcomes as compared to women with a normal BMI.