

Supplementary material 1

1 Maternal demographic characteristic

Maternal characteristics collected included maternal age, ethnicity, educational level, occupation, marital status, place of residence, stature, pre-pregnancy Body mass index, and GWG rate.

Height: women were classified into four categories based on height < 145 cm, 145-149.9 cm, 150-154.9 cm, and ≥ 155 cm. Body mass index (BMI): BMI was calculated as weight (kg)/ [height (m)]². Using BMI, women were classified as underweight (BMI<18.5 kg/m²), normal weight (18.5–24.9 kg/m²), overweight (25–29.9 kg/m²), or obese (≥ 30 kg/m²). Gestational weight gain rate (GWG rate): To assess the adequacy of GWG among the study population, the GWG rate of each participant, which was calculated by dividing the total GWG by gestational age in weeks, was compared with the minimum recommended GWG rate. According to the IOM 2009 guidelines, The GWG of all included participants was categorized as inadequate weight gain, normal weight gain, and excessive weight gain.

2 Pregnancy characteristics

Pregnancy characteristics collected included parity, assisted reproductive technology-conceived pregnancy (ART), previous uterine scar (previous cesarean section or myomectomy), family history of hypertension or diabetes, pregnancy history (history of miscarriage, history of GDM, history of macrosomia, history of preterm labor, history of fetal distress, history of LBW).

3 Pregnancy complications

Pregnancy complications collected included intrahepatic cholestasis of pregnancy (ICP),

pregnancy-associated hypertensive disorders, hyperthyroid, hypothyroid, anemia (defined by hemoglobin < 11 g/dL before delivery) (Goonewardene, Shehata, and Hamad 2012), and pathology of amniotic fluid (oligohydramnios and polyhydramnios)

The gestational hypertensive disorder was classified into four categories: gestational hypertension, preeclampsia, and eclampsia, chronic hypertension with superimposed preeclampsia, preeclampsia and eclampsia chronic hypertension (of any cause), which was diagnosed using standard criteria (Anon 2013).

Reference

Anon. 2013. 'Hypertension in Pregnancy: Executive Summary'. *Obstetrics & Gynecology* 122(5):1122–31. doi: 10.1097/01.AOG.0000437382.03963.88.

Goonewardene, Malik, Mishkat Shehata, and Asma Hamad. 2012. 'Anaemia in Pregnancy'. *Best Practice & Research. Clinical Obstetrics & Gynaecology* 26(1):3–24. doi: 10.1016/j.bpobgyn.2011.10.010.