
**Methods** A sample of 856 children (396M), aged 10.29±2.77, was divided into 3 groups according to maternal GWG (group A, inadequate=323; group B, adequate=250; group C, excessive=283). They were compared for BW, z-BMI and WtHR.

According to maternal education level, we also assigned patients to 5 different groups (PS: primary school; SS: secondary school; GR: graduation), assessing the relationship with GWG, BW, z-BMI and WtHR.

**Results** Statistics show a different prevalence of adequate BW children (2.500–4.199kg), in B(92%), A(89%) and C(88%), and of WtHR (A=0.59±0.05; B=0.52±0.05; C=0.59±0.05). Student’s t-test has p<0.05 between both inadequate (A-C) and adequate GWG (B) for both parameters.

About z-BMI, only the comparison between A and C is significant (A=1.96±0.57, C=2.07±0.49; p=0.026).

GWG also shows significant differences in PS (15.39±6.67) and SS (14.93±7.24) vs. GR (13.19±6.12). The same for z-BMI in PS (2.08±0.61) and SS (1.93±0.48), and in PS and GR (1.91±0.48).

**Conclusions** We can confirm the positive relationship between inadequate GWG and inadequate BW in children, and the increased risk of OW/OB. Besides, there is strict relationship between low maternal cultural level and inadequate GWG, and increased risk of OW/OB outcome.

A strict anthropometric surveillance of pregnant women is desired, to prevent offspring’s future malnutrition in excess.

**Bibliography**