

Impact of Maternal Weight Gain in Fetal Outcome of Teenage Pregnant Mothers

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Introduction: Pregnancy is associated with physiological weight gain in the mother. Maternal weight gain influences both early and late outcomes of the fetus as well as the mother. A teenage pregnancy impacts on the mother's health, social circumstances, pregnancy outcome and the long-term development of the child. The recommended amount of weight gain to achieve optimum maternal and fetal outcomes is still on debate.

Objectives: To find out the association between the Apgar score of the baby at delivery, birth weight and maternal weight gain during pregnancy.

Methods: A Cross sectional descriptive study was carried out in Teaching Hospital Kandy, Sri Lanka for duration of one year. 132 participants with normal pre-gestational BMI (18.5-24.9) were recruited by systematic random sampling technique. Data were extracted from antenatal records, bed head tickets and measurement of relevant variables. APGAR score and the birth weight were the outcome variables.

Results: Response rate was 100% ($n = 132$) and contained mothers of all three weight gain categories including less than 11.3 kg (72.7%), 11.3-15.8 (23.5%) and more than 15.8 (3.8%). Birth weight was distributed from 1.24 to 4.04 kg with **95% CI** from 2.88 kg to 2.96 kg (SEM=0.02). All the correlation coefficient values except pregnancy weight gain were significant with the birth weight. Almost all study participants ($N = 423:99.5\%$) had achieved >7 score of APGAR within 10 minutes.

Conclusion: This study concluded that the maternal weight gain in teenage mothers does not affect the birth weight of the new born nor is associated with birth asphyxia. However further studies are recommended with larger samples and a prospective cohort design.