

**P24: A study on influence of maternal weight gain during pregnancy in selected fetal outcome****Raguraman S, Abeykoon W***Teaching Hospital Kandy*

**Objective:** To describe the relationship between maternal weight gain with birth weight of new born and Apgar score at 5 and 10 minutes of birth

**Method:** A cross-sectional descriptive study was carried out in Kandy teaching hospital from September 2014 to May 2015. 425 mothers were recruited according to the inclusion and exclusion criteria. The data was collected by interviewer administrated questionnaire and mothers' antenatal records. Three weight gain categories were used according to the WHO and institute of medicine (IOM) recommendation to calculate the weight gain frequency percentages and which compared with WHO recommended birth weight and Apgar score of new born. Data analyzed by SPSS 17th version.

**Results:** Response rate was 100% (n=425) and contained mothers of all three categories including less than 11.3kg (74.6%), 11.315.8 (22.6%) and more than 15.8 (2.8%) and mean age of 27.67±6. There were no statistically significant association between all three maternal weight gain categories with birth weight of new born (chi square- 3.97, p=0.68) and Apgar score at 5 minutes (chi square- 5.3, p=0.71). Weight gain less than 11.3kg mothers had statistically significant low Apgar score (4-7) at 10 minutes (chi square- 6.8, p=0.32).

**Conclusion:** Low birth weight and low Apgar score at 5 minutes were not significant in Low (less than 11.3kg) weight gain mothers, but it significant in low Apgar score at 10 minutes. Pre pregnancy planning and antenatal weight gain monitoring during pregnancy will improve fetal outcomes.