

### **OP -3: IMPACT OF MATERNAL BODY MASS INDEX (BMI) AT 10 WEEKS OF GESTATION IN SELECTED FETAL OUTCOME**

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

**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 mother's antenatal records and measurement of relevant variables. According to the WHO's BMI classification mothers fell into 2 categories such normal BMI and abnormal BMI which was used to calculate frequency percentages. These categories were compared with WHO recommended birth weight and it was fell into 3 categories such as low, normal and high birth weight and Apgar score of new born which was classified in to low and normal. Data analyzed by SPSS 17th version.

**Results:** Response rate was 100% (n=425) and contained mothers of normal BMI 49.9% and abnormal BMI was 50.1% and mean age of 27.67+/- 6. There were no statistically significant association between abnormal BMI with low birth weight of new born (p=0.62) and low Apgar score at 5 minutes (p=0.73).

**Conclusion:** Low birth weight and low Apgar score were not significant in abnormal BMI mothers. But maternal weight gain during pregnancy may significantly impact on fetal outcomes. Pre pregnancy planning and antenatal weight gain monitoring during pregnancy will improve fetal outcomes.