

Pre-pregnancy Body Mass Index and gestational weight gain among pregnant women admitted to Teaching Hospital Jaffna

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Background and objective: Pre-pregnancy Body Mass Index (BMI) and gestational weight gain is an important predictor of perinatal outcomes and even long-term health and wellbeing of mothers and children. This study aimed to determine the association between pre-pregnancy BMI and gestational weight gain and its correlates among pregnant women admitted to Teaching Hospital Jaffna.

Methods: This descriptive cross-sectional study was conducted among 427 pregnant mothers who had delivered babies in the obstetrics wards of Teaching Hospital Jaffna during October and November 2019, using an interviewer-administered questionnaire. Convenient sampling was used to select the study sample. Data were entered in EpiData software and analyzed using SPSS software. Descriptive and inferential statistics were performed.

Results: Median age of the participants was 29 years (IQR 26 to 33). Of the 427 participants, 13.8% (n=59) had BMI<18.5 kg/m², 48.5% (n=207) had BMI between 18.5 and 25 kg/m² and 30.2% had BMI>25 kg/m². The majority of mothers had insufficient weight gain (54.8%, n=234), while 31.4% (n=134) and 13.8% (n=59) of mothers gained adequate and excess weight, respectively. Gestational weight gain was significantly associated with pre-pregnancy BMI (p<0.001), having gestational diabetes mellitus (p<0.001), hypertension (p<0.001), extent to which diet was affected by the pregnancy (p=0.034) and number of antenatal field clinic visits (p=0.005).

Conclusion: Majority of pregnant women attending antenatal clinics at Teaching Hospital Jaffna have insufficient weight gain during pregnancy. Gestational weight gain is associated with pre-pregnancy BMI, gestational diabetes mellitus, hypertension, extent to which diet was affected by pregnancy and number of antenatal clinic visits. Measures should be taken to improve maternal weight gain.

Keywords: BMI, Gestational Weight, Antenatal Care, Jaffna