

Title: Effect of maternal factors on the placental Weight/birth weight ratio and Apgar score.

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Abstract: Pregnancy, maternal health, and child development during prenatal and postnatal periods can be influenced by many factors, among these factors are smoking, age, parity, antenatal care, and anemia. Therefore, we will conduct this research to find out the effects of each of these factors on the newborn and the mother's health. This study aims to detect the relationship of maternal factors (age, parity, ANC, smoking, and anemia) on the PWBW- ratio and Apgar score of the newborn and to detect the relationship between placental weight and birth weight. This was a cross-sectional study which was carried out at the labor department in hospitals in Nablus, Jenin, and Tulkarm from August to October 2021, by using a checklist to fill about maternal factors, and a weighing scale to weigh the placenta and baby weight, the subject was 500 women with gestational age 37 weeks or more of pregnancy. The mean birth weight for babies was 3222 grams with a standard deviation (SD) of 456 grams, while the mean placental weight was 672 grams (SD = 143 grams), resulting in a mean PWBW ratio of 22.07% (SD = 4.5%). In conclusion, there was a significant difference in Apgar scores among different maternal age categories, where the percentage of lower Apgar scores (4-6) were found in older mothers, moreover, there was a significant relationship between smoking and higher PWBW-ratio. Lastly, a higher birth weight was significantly associated with higher placental weight.

Keywords: placental weight, birth weight, Apgar score, smoking and pregnancy, Anemia, antenatal care, placental-to-birth weight ratio.