

Length of Pregnancy and Dental Caries Observation in Relation to BMI

Authors : Edit Khajanka, Gresa Baboci, Irene Malagnino, Mimoza Canga, Vito Antonio Malagnino

Abstract : Purpose: This study aimed at identifying dental caries increment or reduction, based on factors such as smoking, the scaling of teeth, BMI before and during pregnancy, carbohydrates consumption in relation to childbirth. Material and method: In this observational study, the sample included a total of 98 pregnant women and their age class was 18-45 years old, with a median age of 31.5 years. The setting of the participants resides in Vlora -Albania. Moreover, 64.4% were from the city and 35.6% were from the nearby villages. The study was conducted in the time period January 2018 -June 2021. Body mass index (BMI) was calculated using the standard formula (kg/m^2). Maternal pre, during and post-pregnancy BMI was collected by using a validated questionnaire. Statistical analysis was performed using IBM SPSS Statistics 23.0. The significance level (α) was set at 0.05, whereas P-value and analysis of variance (ANOVA) were used to analyze the data. Results: Based on the data analysis, 44.4% of the sample declared that they did smoke before pregnancy and 55.6% not smoked during their pregnancy. As a result, no association was found between smoking and length of pregnancy $P=0.95$. There is also a strong relation ($P=0.000$) between the number of teeth with caries before pregnancy and the number of teeth with caries during pregnancy. There is a significant relationship between the scaling of teeth and childbirth, $P=0.05$. BMI before and during pregnancy in relation to carbohydrates consumption have a significant correlation $P=0.004$ and $P=0.002$. The values of BMI before and during pregnancy in relation to childbirth have a strong correlation: $P=0.043$ and $P=0.040$, respectively. As a result, obesity was associated with preterm birth. The percentage of children born during 34-36 weeks of pregnancy was 69%, and children born during 32-34 weeks of pregnancy were 31%. CONCLUSION: There was a positive association between dental caries experience, BMI and carbohydrates consumption. Obesity in pregnancy is increasing worldwide; that is why this study suggests the importance of an appropriate weight before and during pregnancy.

Keywords : BMI, dental caries, pregnancy, scaling, smoking

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