Regression Analysis of Caries Risk Associated to Clinical and Environmental Factors

Sirma T Angelova
DMD, PhD, Bulgaria

Abstract:
The method of regression is a specific analysis that is associated to the evaluation of the consequences and explains the mutual interrelations between the investigated variables. In condition of a linear simple regression analysis model the coefficient of correlation by Pearson provides evidence of the intensity of relations. [1, 2, 3, 4, 5] The purpose of this study is to be represented a regression analysis of the caries risk associated to clinical and environmental factors. Methodology & Theoretical Orientation: In the study is implemented the method of simple (single) linear regression model including subjects organized in groups. Based on the fact that a prognostic function between two variables is assessed in condition of positive or negative moderate, great or extremely great correlation between them, preliminary the coefficient of correlation between the determinants is calculated. [6, 7] Findings: Among 21 children with diagnosed pyelonephritis the prognostic function indicates that if the value of the parameter of salivary nitrites is increased with 1, the number of the carious lesions is expected to decrease with 3,935. Among 5 children with diagnosed nephrotic syndrome the prognostic function indicates that if the value of the indicator of GI is enhanced with 1, the number of carious lesions is expected to be increased with 7,059. Among 10 children without common health disorders for the purposes of the prognostic function we define the environmental factor of oral-dental status of brothers/sisters of the participants as an ordinary variable. The prognostic function ascertains that if the value of this parameter is increased with 1, respectively if it is improved, the number of carious lesions is expected to be reduced with 2,215. Conclusion & Significance: The regression analysis of the significance of different clinical and environmental factors provides substantial information for proper and adequate management of the carious process among children with renal diseases.

Biography:
Sirma Angelova graduated her higher education at the University of Economics in Varna, Bulgaria and gained a Master degree of International Financial Affairs. In 2011 Angelova graduated her higher education and gained a Master Degree of Dental Medicine at the Medical University-Varna. Since 2011 Angelova has been working as an Assistant-Professor at Medical University-Varna. Angelova gained a Certificate of Specialization of Pediatric Dentistry in 2015. In 2017 Angelova gained a postgraduate degree, PhD, after accomplishment of an independent research on the topic of “Caries Risk Assessment and Prevention in Children Suffering from Some Renal Disorders”.

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