

SUMMARY/ABSTRACT

The main aim of this research was to take a perspective over the factors which are significantly responsible for plaque-induced gingivitis and directional plaque-induced gingivitis and then to model them to estimate the chance of plaque-induced gingivitis and directional plaque-induced gingivitis in the presence/ absence of these risk factors. For the fulfillment of the objectives, a hospital based cross-sectional study was designed comprised of both descriptive and analytical components at two randomly selected public sector hospitals of Lahore. A sample of 400 patients, who underwent treatment for their teeth, was selected by a face-to-face survey method. Data comprising of 200 cases and 200 controls aged 11- 72 years old with mean age of 29.52 ± 12.595 years of which 176 were males and 224 were females was collected by a well-designed questionnaire. A pre-test survey based on a sample of 16 patients was carried out to check the reliability of the questionnaire through Cronbach's alpha. Data collected against 28 risk factors was categorized into 3 subgroups named as Socio-demographic, Symptomatic and Systematic risk factors. Percentages and counts on each risk factor was used as descriptive analysis whereas for bivariate analysis Pearson's chi-square test and deviance test were used for plaque-induced gingivitis status and directional plaque-induced gingivitis. To test the main effects and the interaction effects of risk factors, multiple logistic regression and multinomial logistic regression was used over all risk factors and odds ratios of plaque-induced gingivitis status and directional plaque-induced gingivitis for each risk factor were calculated. Finally it was found that Education, Income, Area, Dry mouth, Bleeding gums, Tooth structure, Mouth breathing, Faulty filling, Visits to doctor, Hypertension, Diabetes, Other body diseases, All forms of tobacco, Malnutrition and Vitamin Supplements were the significant risk factors of plaque-induced gingivitis and directional plaque-induced gingivitis. These factors play a major role in the development of the disease.