Abstract

Introduction: stress is the condition that upsets the normal equilibrium of a system, and is the result of physical, mental, or emotional strain or tension. It occurs when humans interact with their environment, and regardless of whether or not the stressors are real or imagined, it can have real mental, physiological, anatomical or physical effects. In the case of dentists, a major stress factor can be the ambient noise that they are subjected to on a daily basis, yet there is insufficient information in the international literature as to the effects of noise generated by dental instruments on dentists. Methods: The aim of this descriptive and comparative study was to assess the level of stress resulting from noise exposure in 45 dentists. All subjects answered a self-assessment questionnaire related to stress perception during the use of dental equipment. The noise produced by this equipment is a stressor. The questionnaire also included questions regarding the labor environment. The dentists were classified into two groups: those with low noise exposure (<90 dB) and those with high noise exposure (>90 dB). We then compared these groups in terms of stress as assessed by our questionnaire. Results: The mean age and years of employment of the subjects evaluated were 41±8.4 and 15.9 ± 8.7 years, respectively. Fifty-eight percent worked only one shift, while the other 42% worked both morning and evening shifts. We observed that 44% of respondents classified the intensity of their noise exposure as average, 40% perceived it as low, and 16.0% said that it was high. The mean noise level (in dB) was significantly higher for general practice dentists as compared to the mean noise level experienced by specialists (t=-4.9, p<0.001). Comparing the psychosomatic symptoms of these two groups, we found that general practice dentists had higher frequencies of fatigue, gastritis, and muscle tension (68.4%) than did specialists (46.1%), (Chi2=10.8, p=0.03). Twelve percent of general practice dentists and 7% of the specialists consumed alcohol to mitigate the stress. Discussion and conclusions: General practice dentists reported higher stress levels than did specialists. This group had significantly higher mean values of noise intensity (90dB/8 hours) than specialists. This is the result of constant use of dental tools, including micromotors and compressors at high and low speeds, in addition to environmental noise that is common during professional practice. Noise is a factor that generates stress in the dental profession, and therefore should be not only be considered as a risk factor for hearing loss but also for stress-related illnesses.
Keywords
Noise, stress, exposure time, job.