

Major Stress Symptoms in Dentists at a Social Security Institution in Guadalajara, Mexico

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Abstract

During dental practice, the professional finds him or herself exposed to stress and to diverse conditions posing a mental or physical health risk. The purpose of this study was to identify the most frequent symptoms of chronic stress in dentists. All dentists (87) that worked during the year 2011 at a Social Security institution were surveyed using the Stress Symptom Inventory (SSI) to record both physical and psychological symptoms.

The results showed that the perception of physical symptoms, such as strong heartbeats, dry mouth, fatigue, headaches, frequent urge to urinate, neck and shoulder pain as well as the psychological symptomatology of anxiety, urge to eat at all times, rage attacks, insomnia, accident proneness and impaired concentration were factors of high-level chronic stress in dentists working at the Social Security institution. Timely identification of chronic stress in dentists may favor the implementation of timely prevention programs for their healthcare and work security.

Keywords: Dentists; Stress; Stress symptoms

Introduction

During dental practice, the professional finds him or herself exposed to different conditions posing a risk of stress symptomatology and or impacting his or her health. Stress is considered to be a person's physiological reaction where several defense mechanisms come into play to cope with a situation perceived as threatening or that goes beyond his or her adaptive resources [1].

Stress not only affects a dentist's physical and/or mental health; it can also be related adversely to the quality of oral healthcare services. Furthermore, dentists may also manifest symptomatology indicative of suffering from severe stress related to work activities, life styles or personality, and social and environmental conditions exposing them to potentially dangerous diseases [2].

Stress surveys mention that Mexico is deemed to be one of the countries with the highest stress levels and that the female gender is affected the most [3-5]. Studies made of professionals suggest that dentistry work can trigger stress and be harmful to one's long-term health and wellbeing due to the mentally and physically challenging nature of the profession. The most common symptoms reported are tiredness, anxiety, bruxism, headaches and depression [6,7]. Therefore, the purpose of this study is to identify chronic stress symptoms in dentists at a Social Security institution in Guadalajara, Mexico by means of the Stress Symptom Inventory (SSI).

Material and Methods

A descriptive cross-sectional study was made during the year 2011. A total of 87 professional dentists working at a Social Security institution in Guadalajara, Mexico were surveyed by census.

The information was given voluntarily and under a condition of informed consent as provided by the General Health Law in effect in Mexico as it applies to research. The project observed the 2008 Declaration of Helsinki concerning informant confidentiality.

Instrument

Stress symptom inventory (SSI): The adaptation for Mexico of a questionnaire drafted and validated by Lipp and Guevara in 1994 has a

Cronbach's alpha reliability of 80 [8]. The questionnaire is comprised of a list of 41 characteristic stress symptoms, with answers on a scale of one to six points (1=never and 6=always) where the participant specifies his or her feelings over the past six months. The frequency of each symptom is classified according to the points selected: high (5 or 6), medium (3 or 4) and low (1 or 2). In order to evaluate chronic stress the sum total of points indicated in the list of symptoms was considered, with an average cutoff point and standard deviation (SD). Three levels were detected: high for those who had two or three SD above the average, medium for those between one SD above or below the average, and low for those who had two or three SD below the average [5].

Data analysis

The Odds Ratio (OR) was estimated with a 95% confidence interval and $p < .05$ significance to determine the association of the symptoms reported over the past six months with high-level chronic stress.

The data were cross tabulated and processed with the SPSS (IBM® SPSS® Statistics 20, USA 1989-2011) statistics package under the university's license.

Results

87 dentists participated in this study of whom 51 (58.6%) were women and 36 (41.4%) were men.

The descriptive analysis mainly identified the following physical or

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psychological symptoms: fatigue in 45 (51.7%) of the dentists, followed by anxiety in 44 (50.6%) of the cases, impaired concentration in 41 (47.1%), neck and backaches as well as accident proneness in 39 (44.8%), rage attacks and migraines in 38 (43.7%), dry mouth and headaches due to tension in 30 (42.5%), an urge to eat at all times in 37 (41.4%), strong heartbeats in 35 (40.2%), insomnia in 27 (31%), frequent urge to urinate in 17 (19.5), depression in 16 (18.4%), high blood pressure in 11 (12.6%), gastritis in 10 (11.5%), and frequent colds, colitis and tremors in 9 (10.3%). Less than 10% of the participants had a strong urge to cry, excessive sweating and a pressing need to constantly move about, weakness, dizziness, feeling "tied down", nervous laughter, increased dosage of tranquilizers, cold hands and feet, allergies, constipation, tight jaw, nervous tics, tend to be startled by low volume noises, indigestion, stomachache, loss of appetite, nightmares, more cigarettes a day, stuttering, grinding teeth, and more alcohol consumption.

Physical and psychological symptoms were significantly associated with high-level chronic stress according to OR with CI of 95% and p value <.05, listed as follows: strong heartbeats (OR=3.07), dry mouth (OR=2.59), rage attacks (OR=2.79), impaired concentration (OR=2.62), fatigue (OR=2.78), anxiety (OR=3.91), headaches (OR=3.55), frequent urge to urinate (OR=4.20), neck and backaches (OR=2.60), urge to eat at all times (OR=2.81), insomnia (OR=7.33) and accident proneness (OR=3.51).

High-level chronic stress was recorded in 59 (67.8%) of the participants, medium level in 26 (29.9%) and low level in two (2.3%) of the surveyed dentists.

Discussion

This study has determined that the perceptions of physical symptoms among the dentists at the Social Security institution were: strong heartbeats, dry mouth, fatigue, headaches, frequent urge to urinate, and neck and backaches as well as psychological symptomatology: urge to eat at all times, anxiety, rage attacks, insomnia, accident proneness and impaired concentration, all of which were factors of high-level chronic stress.

Previous studies about health professional stress [7,9,10] have shown the presence of stress in the dentistry profession, and have determined that dentists are some of the health professionals with the greatest probability of being submitted to severe stress, the most frequent symptoms being: insomnia, over-tiredness, depression, anxiety, bruxism, headaches, results that coincide with those presented in this study, and that can lead to failure, substance abuse and in extreme

cases even suicide [6,7,9,11]. Differences detected may be due to the fact that those studies were carried out in other countries in different work contexts for dentists, the subject of this investigation. Another likely cause of the differences is the analysis of other variables such as coping, health perception and suicide [7-9,11].

We also observed other symptoms in this population in our study: strong heartbeats, frequent urge to urinate, dry mouth, neck and backaches, rage attacks, urge to eat at all times, accident proneness and impaired concentration that are associated with high-level stress. This situation makes these professionals vulnerable to health alterations as well as iatrogenesis due to a lack of concentration, and contributes to improper behavior that may affect the work environment adversely. Timely identification of chronic stress in dentists may favor the implementation of timely prevention programs for their healthcare and work security [2,7,9,10].

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