

Use of Electronic Dental Records in Brazil

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Abstract

This study aims to provide both a quantitative and a qualitative analysis of the usability of the most popular electronic dental records in Brazil regarding its clinical and administrative features. The softwares not only will be evaluated regarding their usage among the Brazilian dental professionals but also regarding their functionalities (present, used and desired) and the difficulties encountered by the dentists during their use.

Keywords: electronic dental records, usability, medical informatics

Introduction

Dental offices in North America containing computers increased from 11% in 1984 to 85% in 2000 [1]. However, only in 25% of these offices the computer is located inside the dental office; the majority are located only in reception areas. In addition, in most dental offices, computers are used mostly as an administrative tool [2]. A possible cause for this phenomenon is the fact that the electronic dental records systems available have as their primary features: treatment planning, procedures charts, office schedule and financial tools. Important clinical features are missed such as medical and dental history, exams respective results, x-ray analysis and standardized nomenclature [3].

Latin America presents very few published studies describing the use of electronic dental records. One of these studies, conducted in Brazil, during 2006, showed that although most dentists own computers (95%), only 44% of them use it in their office, not necessary in the clinical environment. The same study pointed that 57% of the dentists believe the computers might aid in the clinical practice; nevertheless, 61% do not use it for this purpose [4].

The objective of this study is to evaluate the usability of the electronic dental records softwares available in Brazil. In order to achieve this goal we follow the phases; (1) the use of computers in the dental community in Brazil will be determined; (2) the founded softwares will be evaluated regarding their functionalities (present, used and desired) as well as the difficulties described by the dentists during their use.

Methods

This study comprises a quantitative and a qualitative methodology. The quantitative study is based on the study of Schleyer et al (1). The questionnaire used was translated and adapted to Portuguese. A phone contact was made to estimate the number of computer users (the sample for this first contact was of 1000 dentists). The users willing to participate in the full survey will be contacted on a second moment to answer the second part of the questionnaire. The first part of the questionnaire determines the current use of computers in dental offices

and can be answered by any member of the office staff. The second part evaluates the use of electronic dental records and its usefulness, and must be answered by the dentists themselves. The qualitative study will be made through a quick and cloudy ethnography, which is a short-term observational analysis [5]. This ethnographic study will consist of the observation of the daily work of dentists in their offices. The dentists/offices to be observed will be both the ones that use and the ones that do not use electronic dental records software so that a comparison between the types of service provided by these offices can also be analyzed.

Results

Up to the present moment 20 offices were contacted in order to conduct the first part of the questionnaire. The second part of the questionnaire was already applied in 6 offices. All 20 offices have computers and only 2 lack internet access. In 16 offices there are computers both in the reception area and the clinical environment. Electronic dental records are used in 13 offices but only 4 of them are paperless. Nine offices keep both paper and electronic records.

References

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