Statistical methods used in dental journals of SciELO networks [Pruebas estadísticas utilizadas en revistas odontológicas de la red SciELO]

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Introduction: The aim of this study was to analyze the SciELO dental journals and evaluate what statistical methods were being used in their original research articles. Material and method: A descriptive bibliometric review was performed. All original articles published in the dental journals indexed in the SciELO database between 2013 and 2014 were included. The evaluation covered 4262 articles, and through a stratified random sampling by proportional allocation 309 articles were selected. The number and types of statistical methods employed were evaluated. Results: Parametric methods were the mainly statistical analyzes employed. The most frequent were the Post- Hoc tests (n= 110) (Tukey test), followed by one-way ANOVA (n= 84) and the independent-samples t-test (n= 29). Regarding the non-parametric methods, Pearson Chi-Square test was the most frequent (n= 46), followed by the Kruskal-Wallis test (n= 42) and Mann-Whitney U test (n= 27). Descriptive statistics was observed in 112 of the articles. Conclusions: The statistical methods most commonly used in SciELO dental journals were inferential statistics such as Post Hoc tests, ANOVA, t-test for independent samples, Pearson chi-square, Kruskal-Wallis, and Mann-Whitney U tests. This research provides an objective evidence of what ought to be taught to improve understanding of the dental literature from a biostatistics perspective. With this, in addition to clearly understand what give us the scientific papers, we could take better clinical decisions.

Bibliometrics

Dentistry

SciELO

Statistical tests