



Pathology & Biology Section – 2008

G81 Mapping the Literature in Forensic Pathology and Legal Medicine: A Bibliometric Study of North-American Journals From 1980 to 2005

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The goal of this presentation is to describe the evolution of the literature in forensic pathology and legal medicine for North-American journals over more than twenty-five years. More precisely, it will draw a picture of our literature and describe developments and trends regarding numbers of author(s) per article, represented countries and international collaborations, types of articles and use of the scientific method.

This presentation will impact the forensic community by providing new insight in the forensic pathology literature. A better knowledge of this body of literature could help us assess our strengths and weaknesses, and better position ourselves on literature ethical issues.

Bibliometric studies have increasingly been used over the last years. Those studies are useful to understand the evolution of literature or trends in particular fields or within a geographical area. However, in forensic sciences, bibliometry has barely been used yet and the few studies that have been performed mainly focused on most highly cited articles, most prolific authors and impact factors. Thus, the present study specifically aims at mapping the literature in the field of forensic pathology and legal medicine.

The two North-American leading journals in forensic sciences were selected: the Journal of Forensic Sciences and the American Journal of Forensic Medicine and Pathology. All articles in the field of forensic pathology and legal medicine published in those journals in 1980, 1985, 1990, 1995, 2000, and 2005 were retrospectively analysed, excluding editorials, guest editorials, tributes, and book reviews. For each article, the following features were compiled: number of author(s), author's country and international collaboration and type of article. Furthermore, it was assessed if the article was using or not the scientific method, with testing of hypotheses by statistical analysis. A total of 522 articles were examined from 1980 to 2005 at a 5-year interval: 215 articles from the Journal of Forensic Sciences and 307 articles from the American Journal of Forensic Medicine and Pathology. The SPSS 15.0 software was used to perform statistical analyses at a threshold of significance of 5%. Mean values were compared using analysis of variance, while proportions were compared through Chi-square tests.

Overall, the number of articles per year has passed from 55 articles in 1980 to 89 in 2005. Meanwhile, the average number of author(s) per article has significantly increased ($p=0.000$, $p<0.05$), passing from 1.8 to 3.5. The relative contribution of other countries in comparison to the United States has significantly increased from 9.3% to 57.3% ($p=0.000$, $p<0.05$). Articles from international collaboration were absent in 1980, passing to 5.62% of articles in 2005. As for the types of articles, the review article was the only type of article significantly decreasing ($p<0.05$). No significant differences were revealed for the remaining types of articles, although letters to the editor showed a tendency to decrease ($p=0.069$), while original studies showed a tendency to increase ($p=0.088$). Finally, the number of studies using the scientific method did not significantly progress from 1980 to 2005 ($p=0.416$, $p>0.05$), passing from 10.9% to 15.7%.

The literature in forensic pathology and legal medicine in North-American journals has expanded in number of articles per year from 1980 to 2005. However, the relative proportion of pathology and legal medicine in the forensic literature as a whole has stayed about the same. The significant increase in the average number of author(s) per article follows a similar trend in the forensic literature. Finally, it is surprising to see that while the use of the scientific method has significantly progressed in the forensic literature over the last twenty-five years, pathology and legal medicine literature has stayed behind on this aspect. This observation is a warning sign that researchers and authors in our field should notice.

Forensic Pathology, Literature, Bibliometric