Top Cited Authors in Dermatology

A Citation Study From 24 Journals: 1982-1996

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Background: One measure of the impact of a medical article is how often it is cited in other articles. Many authors of articles published in dermatologic journals are seldom, if ever, cited while other authors are often cited.

Objective: To identify the 25 authors whose publications in the dermatology literature were most often cited.

Design: We obtained a citation database from the Institute for Scientific Information. From this database we separately quantified the total number of citations for each author and the total number of citations to first authors of original articles.

Setting: Dermatology journals.

Subjects: All authors of papers published in 24 dermatology journals between 1981 and 1996.

Intervention: None.

Main Outcome Measure: Number of citations.

Results: If all articles irrespective of the author's listing (eg, first or second) are counted, the top 25 cited authors in the dermatology literature from 1981 to 1996 were cited between 1480 and 4706 times. If only citations and articles of which an author was the first listed author are counted, the top 25 authors were cited between 400 and 813 times. Only 4 authors were among the top 25 cited authors by both criteria.

Conclusions: A relatively small proportion of all authors account for a high proportion of all citations of the dermatologic literature. The most frequently cited first authors of original articles were different in 84% of cases from the most often cited authors of all papers irrespective of the individuals placement in the authorship listing.

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Authorship of biomedical articles is a very personal matter and the rules for authorship are the subject of continuing articles on authorship debate.1-3 Within the field of clinical dermatology, many individuals have written 1 or more papers, some of which have been cited often and others have never been referenced elsewhere in the indexed medical literature. In earlier analyses we discussed landmark articles,4 the institutional bases of top cited articles,5 and the relative impact of dermatology journals.6 In this study, we identify the authors whose publications in 24 clinical dermatology journals from 1981 to 1996 were most often cited in the medical literature. We identify such authors in 2 ways: (1) those most cited in this literature no matter where they are listed among the authors (ie, first, second, or third place) in the authorship or the type of paper (eg, article, editorial, review, or proceedings); (2) first authors of original articles with the greatest number of citations.

RESULTS

Table 1 lists the 24 journals studied. Overall, there were a total of 75,807 papers of all types published from 1981 to 1986 in these journals. They were cited a total of 335,108 times during these years in the medical literature included in this ISI database (Table 1). These papers include a total of 33,170 original articles that were published in these journals and these were cited 254,275 times (Table 1). Four journals, the Journal of Investigative Dermatology, Archives of Dermatology, British Journal of Dermatology, and Journal of the American Academy of Dermatology accounted for just over half of all papers published and for 66% of all citations (Table 1).
MATERIALS AND METHODS

Our citation database was obtained from the Institute for Scientific Information (ISI), Philadelphia, Pa. It includes citation information for all papers published from 1981 to 1996 in 24 journals that we identified as the principal clinical and investigative journals in dermatology (Table 1). From this database, we separately ascertained the individuals with the most citations for all types of papers (Table 2) with any authorship placement and for first authors of original articles defined as any paper not classified as any other type listed in Table 2. To determine top cited authors, we attempted to ascertain authorship of individuals who might have been cited with different initials, ie, WA vs W, and to identify different individuals with the same initials. We did not consider name changes. We then identified the 25 most often cited authors based on publication in these 24 dermatology journals from 1981 to 1996 for all authorship placements and all types of papers separately, as well as for first author of original articles. We also describe the demographic characteristics of these individuals and compare their publishing records with other authors who published in these dermatology journals during these years.

Of the 75807 papers, 42156 (56%) were cited at least once. Original articles were more likely to be cited at least once than other types of papers (Table 2) (25194 [76%] of 33170 vs 16962 [49%] of 34637; P<.001). There were a total of 64775 different named authors of the 75807 indexed papers. Only 43977 (68%) of all authors had at least 1 citation credited to their papers. For original articles, 33665 (80%) of 41949 authors were cited at least once. Only 18856 (29%) authors had credit for at least 10 citations. Cited papers average 4.2 authors per paper. Because of multiple authorship, the average author with at least 1 citation had an average of more than 30 citations credited to his/her name.

A total of 11023 authors have at least 1 citation credited for an original article published in these 24 journals of which they were first author. Only 509 authors (4.6% of all cited first authors) had at least 100 citations credited to original articles of which they were first author. These 509 authors accounted for 38% of all citations to original articles.

Table 3 presents the names, number of citations, and ranking for the 25 most frequently cited individuals overall (irrespective of authorship place or type of article) for articles published in the dermatology literature from 1981 to 1996. Table 4 presents the 25 most often cited first authors of original papers during this same period.

Only 4 authors were within the top 25 in both listings (C. E. M. Griffiths, B. J. Nickoloff, W. R. Gammon, and H. Tagami). A total of 31 of the 47 authors listed in the top 25 by either criteria were not among the top 100 cited authors by the other criteria (Tables 3 and 4).

Only 1 woman was listed on either top 25 list. The United States accounted for about half of the authors on both lists.

The total citations for 25 most highly cited authors for all articles and authorship positions ranged from 1470 to 4700 citations (Table 3). If only citations of original articles of which an individual is first author are used as a basis of ranking, 400 citations place an author among the top 25 cited authors for publications in the dermatology literature for this period. The 25 authors most frequently cited overall were cited a total of 54326 times during this period. They accounted for 16% of all article citations from the dermatology literature from 1981 to 1996.

Our analysis of citation of articles published and cited in 24 dermatology journals from 1981 to 1996 and cited in the medical literature during these years documents the enormity of the published dermatologic literature. In the 24 journals we identified, more than 75000 papers with an average of 5000 published per year. The papers were cited more than 325000 times during this 15-year period. Such citations are the acknowledgment that these articles have received from having been listed in the bibliography of another document. Original articles accounted for only about 45% of all published papers, but accounted for about three fourths of all citations. Perhaps more surprising than the total number of papers published are the numbers of individuals who authored at least 1 paper. During the 15-year period we studied, nearly 65000 different names are listed as authors for these more than 75000 papers that appeared in the dermatology literature. Nearly one third of listed authors and 44% of papers of all types, and about one fifth of authors of original articles and one fourth of original articles, were never cited.

Although tens of thousands of authors wrote tens of thousands of papers, a relatively small number of individuals accounted for a large proportion of citations. For example, the 25 most frequently cited authors (Table 3) irrespective of authorship position represented less than one twentieth of 1% of all authors but accounted for 16% of all article citations.

When we set out to identify the most highly cited authors, we realized that this would be a contentious effort. It soon became clear that what it means to be “most highly cited” is not clear cut. Who should be given more weight, the individual whose papers have been cited thousands of times but who was seldom the first author or the less frequently cited first author or sole author? How should citations for original articles be weighed and compared relative to citations for other types of papers such as reviews, meeting proceedings, abstracts, and editorials that are also included in the ISI database we used? In an attempt to provide a view of what often cited might mean, at least with respect to papers published in dermatology journals, we choose to independently rank authors in 2 ways. First, we ranked overall citations in the derma-
ology literature during this period for all articles irrespective of type and authorship. Separately, we determined the number of citations that each first author of original articles in these same journals had garnered over this period. We then compared these lists and we were surprised that there was little overlap between the top listed authors according to each of these criteria. In fact, only 4 individuals ranked in the top 25 according to both criteria. Of the remaining 43 individuals with a top 25 listing according to only 1 criterion, only 16 ranked within the top 100 cited authors according to the other criterion.

A variety of explanations can be given for the apparent discrepancies between lists. The top 25 overall cited authors are often leaders of large and successful investigative efforts that encompass many investigators. On average they appear to be somewhat older. During the 1980s there were more likely to be heads of departments or other large research agencies than authors who ranked in the top 25 according to criteria of the remaining 43 individuals with a top 25 listing according to only 1 criterion, only 16 ranked within the top 100 cited authors according to the other criterion.

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The authors who contributed the most to the cited dermatology literature were from many countries. The United States accounted for about half of those listed. This fact is evidence of the worldwide scope of clinical and investigative dermatology. The list is, however, nearly all male and primarily middle aged and beyond. This probably reflects the composition of our specialty in prior decades and the delay between year of publication and amassing a substantial numbers of citations.

Our findings should be interpreted with a number of important caveats. First, we could not account for name changes although we attempted to combine authors who published with multiple or single initials and separate credit to different individual with the same name and first initials. We made special efforts...
to do this for names ranked among the top 200 in our initial ranking, but this process was not error proof. Therefore, we probably slightly overstated the total number of authors and understated the average number of citations per author, and it is possible we inadvertently omitted someone from our list.

Citations are of course an imperfect means of measuring an author’s impact on the field. Still, they provide some quantification of scholarly contribution, the judgment of which is so often a highly subjective exercise. Furthermore, it seems likely that how often one’s work is cited is a better measure of the impact of an individual’s works than how many papers a person has authored.

The greatest limitation of this work in measuring scholarly contribution among investigators in clinical dermatology is its limitation to documents published in the 24 dermatology journals we selected. Although these journals are likely to convey most of the most often cited papers within the dermatology literature, they exclude dermatologists and dermatologic investigators contributions to general medical and basic investigative, as well as specialty journals outside dermatology. This study also excludes the citation of articles published in the dermatology literature that were cited in journals not included in the ISI database, but these journals are unlikely to be a source of a large number of citations. We believe that the 24 journals we studied represent the great majority of the clinical dermatology literature. We hope that the reader finds it interesting to see who are the most often cited authors within the literature of our specialty.

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