The Research Scholarly Output of Africa in Dermatology From 2012 to 2021: Focus on the Top 10 Dermatology Journals

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KEYWORDS

Africa; dermatology; Scopus; bibliometry; bibliometric; scholarly research; research output; publish; academic journal; scientific research; scholarly journal; scientometric

Africa's contributions to dermatology research have been underreported in the literature, prompting our investigation of the number and quality of scholarly output across the continent's 49 countries. Using Scopus/SciVal, we analyzed publications from 2012 to 2021 and found only 4579 articles with 36,691 citations, indicating limited productivity. A total of 1804 (39.6%) papers, with 23,414 citations, were published with international collaboration.

To evaluate productivity by country, we used four indicators: number of publications, citations, citations per publication, and field-weighted citations impact. Egypt published the most documents (n=1688), followed by South Africa (n=685), Tunisia (n=388), Ethiopia (n=351), Morocco (n=290), Nigeria (n=249), and Kenya (n=206). The countries with the highest citations were Egypt (n=13,667), South Africa (n=8558), Morocco (n=2413), Kenya (n=2197), and Ethiopia (n=2176). Table 1 presents data for all 49 countries.

Journal ranking and metrics can indicate research quality, and Scopus categorizes journals into seven groups or quartiles. Of the 4579 African publications, 4267 are in one of the seven quartiles (Q1-Q7). Only 24 (0.56%) and 195 (4.01%) were published in the top 1% (Q1) and top 5% (Q2) of Scopus sources, respectively. The highest number of documents were in Q5 and Q6.

We also analyzed African contributions to the top 10 dermatology journals globally (Table 2). From 2012 to 2021, these journals collectively published 108,577 articles, but only

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1060 (0.98%) came from Africa, with only 576 published without collaboration with high-income countries. The lack of investment, resources, and infrastructure in Africa likely contributes to low productivity, as well as the challenges faced by researchers in pursuing scientific careers in Africa [1].

Research is crucial for development and productivity growth, but Africa lags behind in investment. In 2011, while worldwide expenditure on research was 1.77% of the total global gross domestic product, Kenya spent only 0.1% and South Africa spent 0.76% of their gross domestic product on research [2,3]. This decline in research quality is attributed to insufficient spending. Only 2% of the 3000 publications from low-income countries are listed in MEDLINE, and only 10% of medical research is conducted in low-income nations. Even in the case of Ebola research, most of it was done in the United States [4].

African scholars must remain dedicated to addressing their continent's problems and should consider stepping outside their comfort zones to pursue knowledge, develop long-term partnerships with high-income countries, and use applied research to bring new information to the continent [2,3]. Ongoing discussions among stakeholders, including local governments and research institutions, are essential for putting local research into practice. Regular engagement with regional and international researchers and policy makers is necessary to understand global concerns and priorities. To support these efforts, financial aid, research budgets, collaboration, and exchange programs are urgently needed.

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Table 1. The scholarly output for all 49 countries.

| Country/region | Scholarly output, n | Citations, n | Citations per publication | Field-weighted citation impact | | |
|---------------------------|---------------------|--------------|---------------------------|--------------------------------|--|--|
| Egypt | 1688 | 13,667 | 8.1 | | | |
| South Africa | 685 | 8558 | 12.5 | 1.21 | | |
| Tunisia | 388 | 2118 | 5.5 | 0.68 | | |
| Ethiopia | 351 | 2176 | 6.2 | 0.51 | | |
| Morocco | 290 | 2413 | 8.3 | 0.69 | | |
| Nigeria | 249 | 1788 | 7.2 | 0.6 | | |
| Kenya | 206 | 2197 | 10.7 | 0.87 | | |
| Uganda | 152 | 1672 | 11 | 0.85 | | |
| Tanzania | 124 | 1213 | 9.8 | 0.74 | | |
| Malawi | 65 | 571 | 8.8 | 0.75 | | |
| Cameroon | 60 | 462 | 7.7 | 0.54 | | |
| Ghana | 54 | 346 | 6.4 | 0.56 | | |
| Botswana | 53 | 277 | 5.2 | 0.46 | | |
| Côte d'Ivoire | 53 | 253 | 4.8 | 0.5 | | |
| Zimbabwe | 50 | 638 | 12.8 | 0.93 | | |
| Burkina Faso | 42 | 202 | 4.8 | 0.54 | | |
| Senegal | 41 | 316 | 7.7 | 0.79 | | |
| Годо | 36 | 141 | 3.9 | 0.43 | | |
| Zambia | 32 | 302 | 9.4 | 0.65 | | |
| Benin | 31 | 169 | 5.5 | 0.52 | | |
| Rwanda | 30 | 305 | 10.2 | 0.84 | | |
| Sudan | 30 | 351 | 11.7 | 1.1 | | |
| Algeria | 26 | 223 | 8.6 | 1.21 | | |
| Libyan Arab Jamahiriya | 21 | 791 | 37.7 | 1.88 | | |
| Mali | 19 | 117 | 6.2 | 0.57 | | |
| Mozambique | 17 | 149 | 8.8 | 0.89 | | |
| Madagascar | 12 | 43 | 3.6 | 0.3 | | |
| Congo | 10 | 51 | 5.1 | 0.39 | | |
| Guinea | 10 | 69 | 6.9 | 0.68 | | |
| Democratic Republic Congo | 9 | 38 | 4.2 | 0.61 | | |
| Gabon | 8 | 83 | 10.4 | 0.77 | | |
| Mauritius | 8 | 51 | 6.4 | 1.11 | | |
| Reunion | 8 | 50 | 6.3 | 1.03 | | |
| Lesotho | 7 | 23 | 3.3 | 0.32 | | |
| Namibia | 7 | 81 | 11.6 | 0.61 | | |
| Liberia | 6 | 7 | 1.2 | 0.09 | | |
| Angola | 5 | 13 | 2.6 | 0.54 | | |
| Somalia | 4 | 9 | 2.3 | 0.4 | | |
| Central African Republic | 3 | 41 | 13.7 | 1.16 | | |
| Niger | 3 | 13 | 4.3 | 0.42 | | |
| Guinea-Bissau | 3 | 37 | 12.3 | 1.12 | | |
| Sierra Leone | 3 | 15 | 5 | 0.45 | | |

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| Country/region | Scholarly output, n | Citations, n | Citations per publication | Field-weighted citation impact | | |
|----------------|---------------------|--------------|---------------------------|--------------------------------|--|--|
| Swaziland | 3 | 23 | 7.7 | 0.71 | | |
| Burundi | 2 | 10 | 5 | 0.33 | | |
| Gambia | 2 | 27 | 13.5 | 1.19 | | |
| Mauritania | 2 | 14 | 7 | 0.99 | | |
| Chad | 1 | 3 | 3 | 0.44 | | |
| Comoros | 1 | 8 | 8 | 0.54 | | |
| South Sudan | 1 | 10 | 10 | 0.93 | | |

Table 2. The list of the top 10 journals with the total number of publications, number of countries involved, number of African countries, African total publications with collaboration, African total publications without collaboration, the top six African countries, and their contribution to each journal.

| Title | Publica- tions, n | Coun- tries, n | African countries, n | Total African publica- tions with collabora- tion, n | Total African publica- tions without collabora- tion, n | Egypt, n | South Africa, n | Tunisia, n | Malta, n | Nigeria, n | Morocco, n |
|---|----------------------|-------------------|----------------------------|---|---|----------|--------------------|------------|----------|------------|---------------|
| Journal of the American Acade- my of Dermatolo- gy | 26,474 | 116 | 29 | 154 | 68 | 60 | 33 | 9 | 5 | 7 | 6 |
| JAMA Dermatol- ogy | 3638 | 83 | 17 | 18 | 2 | 1 | 3 | 2 | 1 | 3 | 0 |
| American Journal of Clinical Der- matology | 1452 | 62 | 6 | 14 | 8 | 5 | 4 | 2 | 1 | 1 | 0 |
| Journal of the Eu- ropean Academy of Dermatology and Venereology | 11,571 | 134 | 38 | 237 | 127 | 86 | 16 | 45 | 36 | 8 | 10 |
| Experimental Dermatology | 4480 | 74 | 8 | 36 | 10 | 18 | 8 | 5 | 0 | 0 | 1 |
| Journal of Derma- tological Science | 3721 | 73 | 7 | 23 | 9 | 11 | 6 | 0 | 0 | 1 | 2 |
| Clinics in Derma- tology | 3534 | 80 | 18 | 54 | 24 | 13 | 13 | 4 | 4 | 0 | 0 |
| Journal of Inves- tigative Dermatol- ogy | 21,065 | 95 | 14 | 57 | 6 | 11 | 16 | 10 | 0 | 0 | 5 |
| British Journal of Dermatology | 29,828 | 123 | 35 | 439 | 306 | 66 | 229 | 20 | 19 | 22 | 0 |
| Dermatologic Clinics | 2814 | 61 | 8 | 28 | 16 | 4 | 17 | 0 | 1 | 0 | 0 |

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Conflicts of Interest

None declared.

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