Analyzing the relationship between altmetric score and literature citations in the dermatology literature

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Abstract

Background: Standard bibliometric methods used in dermatologic research include impact factor and citations. The Altmetric score is an adjunctive measure of article impact.

Objectives: The purpose of this study is to examine the breadth of societal impact made by scientific articles in dermatology and investigate a correlation between an article’s impact factor and citations, with its Altmetric score.

Methods: We reviewed 15 dermatology journals with the highest impact factors and analyzed the 10 most cited articles from 2013 and 2016 within those journals. We studied the articles’ Altmetric scores, number of citations, and social media mentions. Using microsoft excel, we performed statistical analysis with Pearson correlation coefficients and descriptive statistics. Results: Analysis revealed a significant positive relationship between citation count and Altmetric scores for articles published in 2013 (p=0.0009) and 2016 (p=0.003). Impact factor was also significantly associated with Altmetric scores across both years (p=0.002, p=0.0005).

Conclusions: Altmetric score weakly corresponded with citation count and journal impact factor across cohorts. We conclude that Altmetric scores serve as an additional measurement of article impact in dermatology, though they are insufficient as a replacement for traditional measures at this time.

Biography

Ana Preda-Naumescu is a third-year medical student at the University of Alabama (UAB) school of medicine with a passion for medical education and patient care. She is pursuing a residency in dermatology. Her research endeavors include both clinical trials and several publications with a focus on dermatology and ophthalmology pathology.